Biovin® powder

Organic soil improver
- the basis for
healthy crops

Biovin is based on the organic remains of the grape pressing process (grape must). The humification of the grape must creates a product with organic plant nutrients and a great number of beneficial micro-organisms, including the important nitrogen-fixating bacteria (actinomycetes) and SAR (Systemic Aquired Resistance) microbes. They improve resistance and tolerance for abiotic stress.

At least 45 researches have been run since 1974, all scientifically coordinated by several different government and university research stations and facilities. The outcomes always indicate that Biovin promotes the uptake of mineral fertilizers and prevents nitrate leaching. The nitrates are converted into ammonium nitrogen for the plants. The use of Biovin achieves major savings in the use of manure and/or fertilizer and can reduce leaching.

PRODUCT BENEFITS

- Contains essential bacteria and fungi
- Beneficial effect on ecosystem in the potting soil
- Positive effect on plant growth
- Positive effect on harvest quality
- Easy to mix
- Great diversity in trace elements
- Guaranteed free of weeds
- Prevents high nitrate levels in plants and in the soil

USE IN COMBINATION WITH OTHER (PHC) PRODUCTS

Biovin can be used in combination with all PHC fertilizers, PHC bacterial products and PHC mycorrhiza products. The use of Biovin Liquid amplifies the effect of Biovin. This creates an active soil and root environment, shedding a completely new light on the use of fertilizer, fungicides and biocides.

Lawns (sport fields, golf courses)
Mix Biovin with topdressing sand. Apply in March and September. Spread 10 kg/100 m^2 and let it withdraw with water.

Container cultivation
Mix Biovin with potting soil combined with MiniPlug or VA Cocktail (mycorrhiza)

Seed beds
Spread 10 kg of Biovin per 100m^2 and VA Cocktail mycorrhiza spores or Pt spores. Prepare the seed bed using a rotating cultivator and seed or plant it.

Planting trees/shrubs
Mix 100 grams – 1 kg of Biovin through the soil for the plant hole.

Packaging, transport & storage
Biovin is supplied in 20 kg bags (40 bags a pallet = 800 kilo), and in 600 kg BigBags. Store dry, frost free and out of direct sunlight. Wet material can clog machinery.
Shelf life: 2 years minimum.

PHC Plant Health Cure

We Grow Soil.

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Health and safety information
Not intended for ingestion. Wash hands after use. Wear protection clothing and respiratory protection (fitted with a P3 dust filter) when loading/using this product. In case of an accident or if you feel unwell, consult a doctor. KEEP OUT OF REACH OF CHILDREN.

Product licences
Biovin is an organic biostimulant and is approved for use in organic farming in accordance with EU Regulation 834/2007 and NOP. Belgium exemption: EM018.T, Humified grape must. Approved input by Soil Association. Check current listings also on inputs.bio, inputs.eu.

INGREDIENTS

Humified grape must	100 %

DOSAGE

Container cultivation	3 kg per m^3
Vegetables & fruit	600 kg/ha
Greens	80-100 g/m^2
Field application	400 kg/ha
Row application	200 kg/ha

ADDITIONAL INFORMATION

Different doses may apply for the recovery of fields in poor (bio) condition. Consult your product representative for tailor made advice.

CHEMICAL ANALYSIS

Properties	Value
pH	7.31
Density	0.77 kg/l
Dry matter	78.60 %
Organic matter	68.90 %
Ash	9.7 %
Caloric value (energy)	10,000 mj/kg

Chemical analysis	% of weight
total nitrogen (N)	2.35
nitrate nitrogen (NO3-N)	0.05
ammonium nitrogen (NH4-N)	0.11
organically bound nitrogen	2.19
total phosphate (P2O5)	0.57
total potassium (K2O)	2.39
Calcium oxide (CaO)	1.32
Magnesium	0.32
Sodium	0.01
insoluble hydrochloric acid	3.38
Sulphate (SO3)	0.35
Carbon dioxide (CO2)	0.28
Carbon (C)	38.80
humus components (of tot.org. matter)	66.78
Nitrogen : carbon (N : C)	0.06

Trace elements	ppm
Copper (Cu)	27.00
Manganese (Mn)	50.00
Iron (Fe)	1420.00
Zinc (Zn)	29.00
Cobalt (Co)	0.40
Molybdenum (Mo)	2.88
Lead (Pb)	1.20
Cadmium (Cd)	0.20
Chromium (Cr)	13.30
Nickel (Ni)	8.50
Arsenic (As)	0.00

GROWTH FACTORS

Humin (formed in the process)	66.7 %
Thiamine	22.75 µg/100g
Pyridoxal	45.59 µg/100g
Nicotinamide	99.52 µg/100g
Nicotinic acid (total)	115.57 µg/100g
Zeatin (cytokinin)	160.00 µg/100g

MICROBIOLOGICAL CONTENT PER GRAM

Soil fungi 1x10⁶ /g	Streptomyces 1x10⁶ /g	Bacteria 1x10⁸ /g
Aspergillus niger	S. griseoruber	Bacillus sp.
Myceliophtora thermophila	S. rimosus	Pseudomonas sp.
Paecilomyces varioti	S. thermoflavus	Arthrobacter sp.
Thermomyces lanuginosus	S. actuosus	Cellulomonas sp.
	S. atroolivaceus	Nitrosomonas sp.

As with all organic materials, the analysis may vary as much as 15%.