

# Potassium Humate Granule

## DESCRIPTION:

**POWHUMUS WSG-85<sup>®</sup>** is a concentrated substance and a 100% water soluble high-quality plant growth stimulant and soil-conditioner and can be applied for agricultural and horticultural plants, fruit trees, ornamental plants, turf and pasture for soil and foliar application. It is a permanent humic substance and can not be degraded that fast by the micro-organisms of the soil. It can be used together with or without most fertilizers and micronutrients.

## ORIGIN:

**POWHUMUS WSG-85<sup>®</sup>** is gained through alkaline extraction from German highly oxidized lignites (known as Leonardite). It arises at the chemical and biological humification of plant and animal matter and by the biological activity of micro-organisms. They provide a very high content of humic and fulvic acids and about 60 natural biologically active trace elements.

## COMPOSITION:

Potassium Humates:	80-85%
Potassium (K <sub>2</sub> O; dry matter):	12%
Iron (Fe):	1%
Org. (N):	1.3%
Others:	1.1 %
Water:	app. 10% at production
pH-Value:	9-10.5
Density:	ca. 0.55 kg/L
CEC:	400-600 meq/100g
Particle size of Insol. Cont.:	<100 Microns
Solubility in water:	100%
Color:	black brown
App. 60 physiologically active trace elements	



## 100% water soluble granulated Potassium Salts of Humic Acids for soil and foliar application

### BENEFITS:

**POWHUMUS WSG-85<sup>®</sup>** is a growth stimulant and soil conditioner especially for sandy and clay soils. As a crystalline granule, it can be transported easily. It can be applied to all agricultural and horticultural plants. It can enhance the performance of fertilizers and reduces input-costs.

- Stimulates plant growth by an increased biomass production
- Increases yield and improves quality of plants
- Stimulates plant enzymes
- Improves the soil structure and the water holding capacity
- Increases and stimulates beneficial microorganisms
- Enhances the cation exchange capacity (CEC)
- Increases the effectiveness of fertilizers and reduces nutrient especially nitrate leaching
- Promotes root development
- Increases the permeability of cell membranes in the roots and increases nutrient uptake
- Acts as a natural chelator for microelements in alkaline soils and increases their availability for plants
- Decreases stress by drought and stress by the application of plant treatments
- Increases the germination of seeds and enhances development of radicles
- Reduces the residues of herbicides and toxic substances in the soils
- Delays the decomposition of ultraviolet unstable agents

### DIRECTIONS FOR USE:

**POWHUMUS WSG-85<sup>®</sup>** is 100% water soluble and it will not block the nozzles of irrigation systems, as the particle size of the suspension is <100 microns. It is suitable for direct application or you also can mix it with soluble fertilizer formulations like soluble NPK, DAP or urea and also with

herbicides. It can be applied by sprinkler, drip or surface irrigation systems. First mix the recommended amount with a minimum of 5 liters of water and fill it in the mixing tank. We recommend a miscibility test before the first application of a mixture.

### Soil application (Trickle/ Drip Irrigation):

Apply 2-4 kg/ha per year, on sandy soils 3-6 kg/ha per year. It is recommended to use it more frequently but in rather small application rates. It can be mixed with other soil amendments like peat, sand or compost to enhance the biological activity with 500-1000 g/m<sup>3</sup>. In using surface systems, mix 50-60 g/m<sup>2</sup> in a depth of up to 20 cm.

### Foliar application (Boomspray/ Sprinkler/ Overhead Irrigation):

Use a concentration of not more than 0.015% (150 g/1000 L) and mix it, if you like, to foliar fertilizers or to pesticides 2-4 times per crop.

### Seed treatment

Blend the seeds with a 0.01-0.03% solution, pH 7-7.5, the best at 20°C for 8-10 hours. Per 100 kg seeds apply 10-20g of **POWHUMUS WSG-85<sup>®</sup>**.

### UV protection:

Mixture of 0.1% (400g in 400l water/ha and 1m crown height).

### Form of delivery

25 kg Paper Bag  
Other forms of delivery are available on request.

### For further information, please contact:

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