



Geohumus International
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Order now
geohumus® for testing!

Advantages of geohumus®

Water storage:

Storage of irrigation water by reduction of evaporation and seepage

Nutrition with essential elements:

Vital and stable plants by controlled and complete nutrient supply which is required after the Liebig' mineral substance theory (with all mineral trace elements)

Compact:

Slight dosage with convenient handling

Fertile:

Vegetation in hot and dry zones as well as in very sandy soils (i.g. to combat desertification in sandy soil) will be possible

Protect:

Reduction of salinization

Safe:

geohumus® is a mineral hybrid. It is absolutely non-toxic with a long product lifetime of 3 – 5 years



geohumus® – soil enhancer
with water storage capacity based on nanotechnology



“ green world
by geohumus® ”

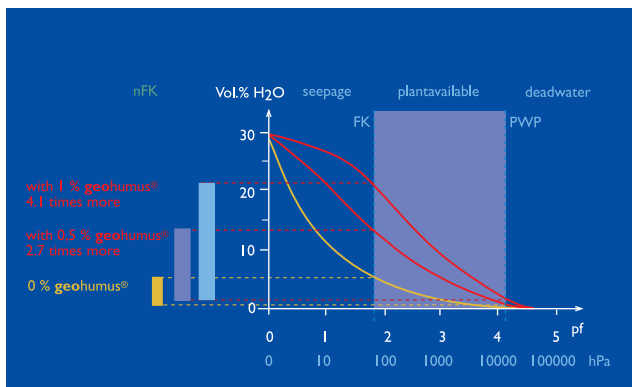
water is our element – water saving our business

geohumus® is a non-toxic soil enhancer for agricultural use. It has an excellent water storage capacity and a product lifetime of 3 – 5 years. **geohumus®** is a high-efficiency polymer being produced by polymerisation and consists of a water storing hybrid material, volcanic rock flour and plant available colloidal silicate. **geohumus®** is based on national and international patents

Traditional super absorbents are used as non-toxic articles in the sanitary market for 30 years.

Only 1 % of **geohumus®** leads to 4 times more plant available water in the soil.

geohumus® stores the water up to 30 times its own weight (1 kg **geohumus®** stores 30 litres of water).



Plant available water

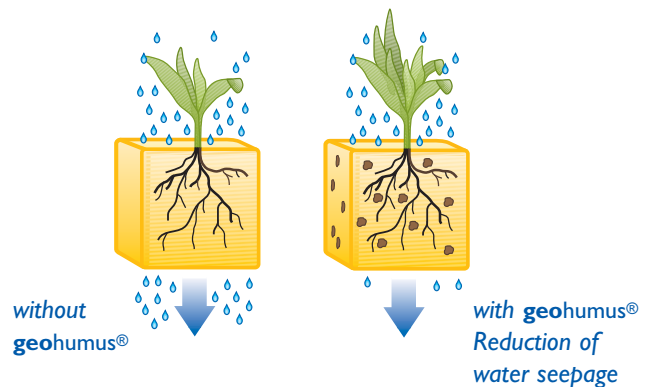
Besides the above mentioned facts, scientific studies of the University of Giessen have proved that only 1 % **geohumus®** leads to 40 % more biomass and 20 % more plant height.

Mineral substances

To ensure good growth, each plant needs water and light as well as different nutrients. The volcanic rock flour of **geohumus®** delivers essential substances and minerals. Thus, the plants vitality can be increased considerably.

Application

Depending on the root size of the plants, trees etc., **geohumus®** will be inserted into the soil. The water can be stored at the root and stays available for the plant. Only 100 g of **geohumus®** is necessary for a surface of 1m².



Water saving and reduction of salinization

Depending on the soil type (e.g. very sandy soils), the irrigation water is quickly seeped away and the plant may suffer from a shortage of water.

Due to the excellent water storage capacity of **geohumus®**, a large quantity of water can be saved in the soil and the irrigation periods can be reduced half. This is very important especially for arid zones and dry seasons. Because of low rainfall, arid zones get their irrigation water e.g. through seawater desalting plants. 1 m³ desalt water washes 1 kg salt into the soil. Half of the irrigation periods lead to half of the salinization risk. Each year approx. 20.000 km² of fertile soil are lost due to salinization.



“green world
by geohumus®”





Swelling capacity of geohumus®

Application fields of geohumus®

geohumus® can mainly be used in areas:

- With water shortage
- With high costs for plant irrigation (seawater desalination plants)
- Where water and nutrients are washed out of the soil
- With tendency to salinization

Examples:

geohumus® leads to more vitality and water saving in the following fields:

- Agriculture (especially in arid zones)
- Combat desertification
- Golf courses and sport fields
- Gardening and landscaping
- Market gardening (flowers, vegetables, fruits)
- Tree nursery, reforestation
- Public green areas
- Hotels
- Special application fields:
Horse riding and livestock farming



Cress as non-toxic indicator

Combat desertification with geohumus®

Desertification and dryness cause a loss of important agricultural zones.

geohumus® offers the possibility to combat desertification by:

- Reactivation of vegetation on unfertile soil
- Improvement of water balance
- Ideal conditions for plant growth
- Prevention of erosion
- Reduction of evaporation
- Increasing of plant diversification

Results:

geohumus®

- 30 times swelling capacity
- Absolutely biocompatible
- 1 % geohumus® leads to:
 - 40 % increase of biomass
 - 20 % increase of plant growth
 - 4 times more plant available water