



## Instructions

- Explanatory note -
  - Benefit -
  - Mode of action -
    - Product data -
      - Application -
- Usage recommendation -
  - Test design –









### **Explanatory notes**

Take advantage of biostimulation with the Penergetic technology for active and fertile soil.

penergetic b promotes the formation and regeneration of soil life as well as the formation of mycorrhiza. By activating the soil life the soil fertility is improved sustainably and the soil structure is optimized. Through the increased mycorrhiza growth the soil is able to increase the nutrient availability for the plants.

The optimized soil structure improves the circulation of air and water.

## **Benefits**

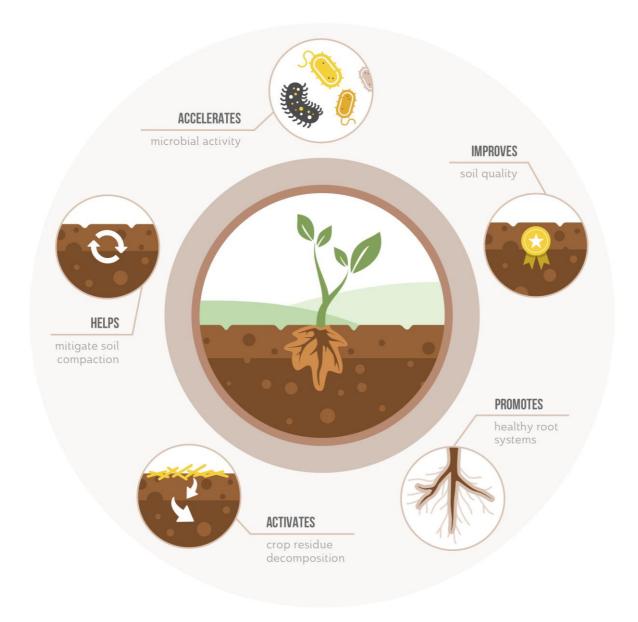
- Accelerates microbial activity and soil quality
- Increase phosphorus availability
- Accelerates microbial activity
- Reduces influence of harmful micros
- Improves mycorrhiza growth
- Activates crop residue decomposting
- Improves soil quality
- Promotes healthy root systems
- Helps mitigate soil compaction
- Increased number of beneficial fungi in the soil
- Less fertiliser needed due to improved soil fertility
- Optimised soil structure (air, water, heat balance)
- Easier tillage
- Reduced leaching of plant nutrients
- Less machinery work needed
- Better supply of nutrients for plants
- Reduces weed pressure







# **Mode of action**









## **Product data**

Carrier material	Package		Shelf life
	Box	200 gr	
Bentonite	Bucket	2.5 kg / 10 kg	5 Years
	Bag	8 kg	
Molasses	Canister	2.5 lt / 10 lt	18 Months

We offer further carrier material, please ask us

Product forms	Article no.	Note
penergetic b Standard	3000	For soil treatment
penergetic b Potatoes	3110	Specialized product for soil
		treatment for potatoes

Further specific products on request







### **Application**

The following doses are recommended by Penergetic International AG. These are general recommendations that need to be adapted according to local conditions. Factors like weather, climate, soil composition etc. can influence the products' efficacy.

On large areas (from approximately 500 hectares upwards) we recommend carrying out soil analyses in order to optimize the application of Penergetic products.

For this purpose, Penergetic provides a template

penergetic b can be used with all soil types and it can be mixed with most fertilizers (NPK), herbicides, minerals, powdered rock etc. However, the instructions from the manufacturers of the individual products must be adhered to. If necessary, a trial mix can be prepared. Mix the Penergetic products with water and stir continuously before adding the mix to the tank. Then pour the mix into the tank with the agitator running and apply. For optimal results we recommend applying the product regularly.

#### Do not mix with oily substances.

A combined application of dry and liquid product is possible.

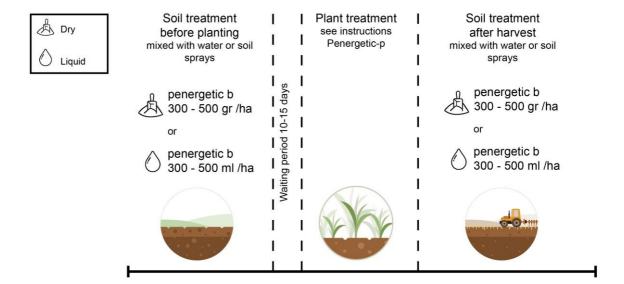
You will find further information and instructions for carrying out trials at the end of this document.







## **Usage recommendation**







### Test design

The simplest test design consists of two series of tests, one with Penergetic and one without (control). To get the best results consider the following instructions.

#### Prevention measures against unwanted transfer of effects

- Penergetic products possess the ability to transfer their effects to their environment. A glass, for instance, having contained a Penergetic product can transfer its effect characteristics to its next contents, even after thorough cleansing. In order to rule this out it is essential to use separate jars, spray can and utensils, marked in detail, throughout the entire duration of the test.
- If working with machines, do first the control area. Then mixing the Penergetic products in the sprayer or tank and apply it on the test (Penergetic) area. After that clean the equipment.
- For the arrangement of pot tests, a distance of 1.5 m between the pots has proven to be sufficient. In the case of larger tests, distances of 5 -10 m are advisable. Special attention is called if Penergetic objects or the test objects come in contact with water or metal. Water transfers information particularly quickly over a long distances.
- It takes several weeks until the effect of the Penergetic information will be disappeared from the test device.
- Tests should not be done on glass or metal tables that are connected to each other, this could lead to an information transfer.
- If there is an inclined ground, put the Penergetic test at the bottom so there is no contamination.

#### Reduction of fertiliser

The Penergetic products work as an enhancer. If the customer is using mineral fertiliser (NPK) or similar products they should reduce it by ~20% to balance the enhancement.

### Mixing penergetic b and penergetic p

Do not mix penergetic b and penergetic p together. Allow at least 10-15 days in between when using penergetic b and penergetic p. Optimal are 20 days.







### How to set up and document a trial

- Define a responsible person who takes care about the test
- Take pictures from the beginning (make high quality pictures)
- Use previous documents of evaluations/analyses without Penergetic to make a clear comparison
- Use previous soil analysis or make one before the trial
- Description of the initial situation
- Description of the objective / goal
- Create a data / control sheet where all the parameter (dose, application rate etc...) are written down



