

# penergetic



the natural biotechnology

## For Compost and Soil - build better humus

# penergetic<sup>k</sup>

- promotes healthy fertile soil
- stabilizes the decomposition process
- strengthens the soil food web
- reduces need for fertilizer & farm chemicals

A compost / soil additive that accelerates the decomposition process of field residue, manure and compost and strengthens nutrient recycling.

Penergetic k works with the biological processes in nature to stimulate the microorganisms in the soil and helps to release nutrients fixed in the soil.





## Penergetic k primary applications include:

- composting of in-field crop residue and field mulch
- soil preparation prior to planting
- aerobic breakdown of manure and compost
- improving barn/stable conditions

## BENEFITS

### A) Soil Treatment

- Increases soil's water absorption capacity and helps to increase soil fertility in plants
- Supports better soil texture permitting increased root exploration capacity
- Nurtures the soil food web and stimulates the activity of soil micro-organisms
- Conditions the soil to support the development of healthy plants
- Suitable for organic farming (OMRI listed)

\* ***Optimal benefits achieved when used in combination with penergetic p.***

### B) Composting

- Activates accelerated composting by an aerobic process
- Suitable for composting solid manure and plant matter
- Reduces insect pest problems and odours associated with composting
- Produces more homogeneously consistent compost mix
- Limits loss of nutrients (e.g. nitrogen) during composting process
- Proven and cost effective approach to composting
- By supporting more thorough breakdown of manure, prevents nutrient overload on fields

### C) Barns and Stables

- Reduces flies and odours in livestock/poultry stalls and barns
- Helps control odours and disease contagion in poultry & dairy barns
- Starts composting process in soiled livestock bedding / poultry litter



**Control**



**with penergetic k  
(greater root mass)**





## PRODUCT FORMATS (three forms):

- Bentonite (extra fine), Bentonite ULTRA and Molasses

## APPLICATION

### A) Soil Treatment / Field Application

- Can be applied as part of pre-seed, pre-harvest or post-harvest application
- Can be used in combination with other spray applications (e.g. herbicides, etc.)
- Alternatively, can be mixed with slurry (should be mixed in on same day spraying occurs)
- Dry application can be done (e.g. mixing with granular fertilizer)
- For spray application use Penegetic k ULTRA - as optimizes particle suspension in spray mix
- Best applied after previous crop harvested & allow time separation prior to penegetic p applied

**Note:** Read and follow application instruction before spraying penegetic k.

**Rate of Application** (based on subsequent crop to be planted):

[in oz (grams) / acre]	<u>1st Year's Application</u>	<u>Subsequent Years</u>
Cereal Crops/Corn/Soybeans	7.0 oz. (200 g)	3.5 oz. (100 g)
Oil Seed Crops (e.g. canola, flax)	7.0 oz. (200 g)	3.5 oz. (100 g)
Pulse Crops (lentils, beans, peas)	7.0 oz. (200 g)	3.5 oz. (100 g)
Vegetable Crops	17.5 oz. (500 g)	8.8 oz. (250 g)

≈ For best results use in conjunction with Penegetic p ≈

### B) In Compost and Solid Manure

30 grams of penegetic k per cu. yd. (40 g per m<sup>3</sup>) of manure or compost.

**Dry:** Premix penegetic k in rock meal, sawdust or similar substances. This enables uniform and accurate application.

**Wet:** Stir penegetic k into water and leave for a while. Apply evenly with a sprayer (or simply a watering can).

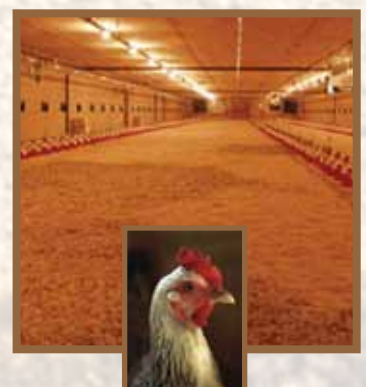
Apply penegetic k evenly to the compost layers. When an existing pile is no longer to be turned, poke several holes into the pile and pour Penegetic k into these holes.

Penegetic k can also be applied while turning the compost/dry manure (such as a windrow) or can be applied just prior to field application.

### C) In Barn and Stable

Generally, apply penegetic k to the barn floor at approx. 1.5 to 3 oz per 100 sq. ft. (4 to 7 g/m<sup>2</sup>) after cleaned out. Apply more product each time after more bedding/litter is added. [Contact Distributor for more details.]

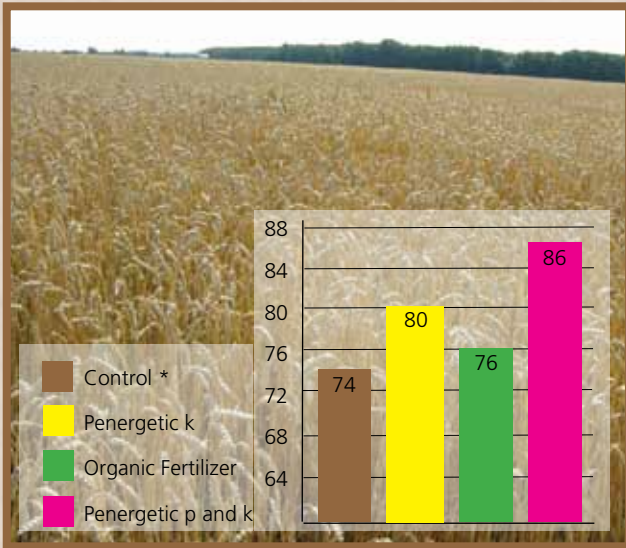
In poultry barns Penegetic k may be used on litter, belts and in pits.



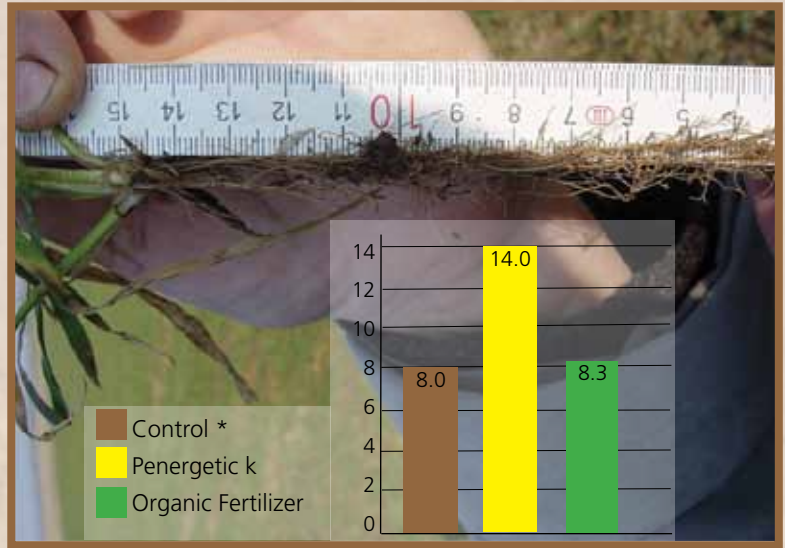


## FIELD RESULTS - Winter Wheat

### Productivity (in bu/acre)

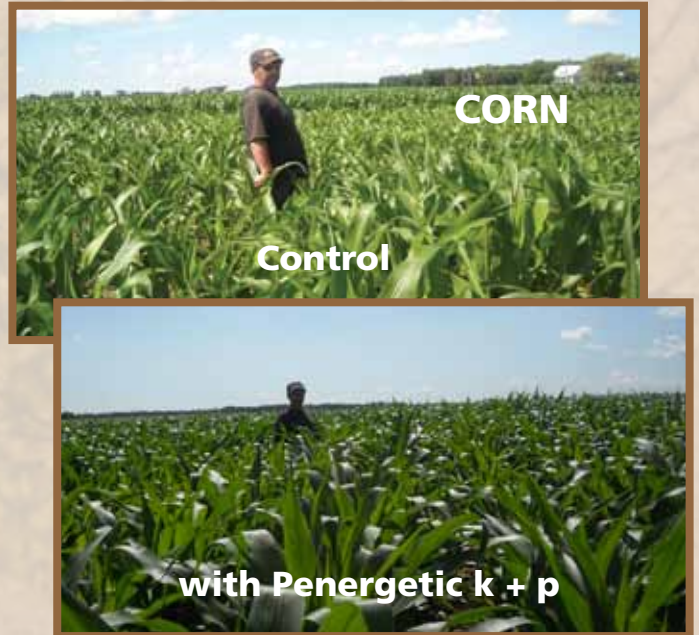
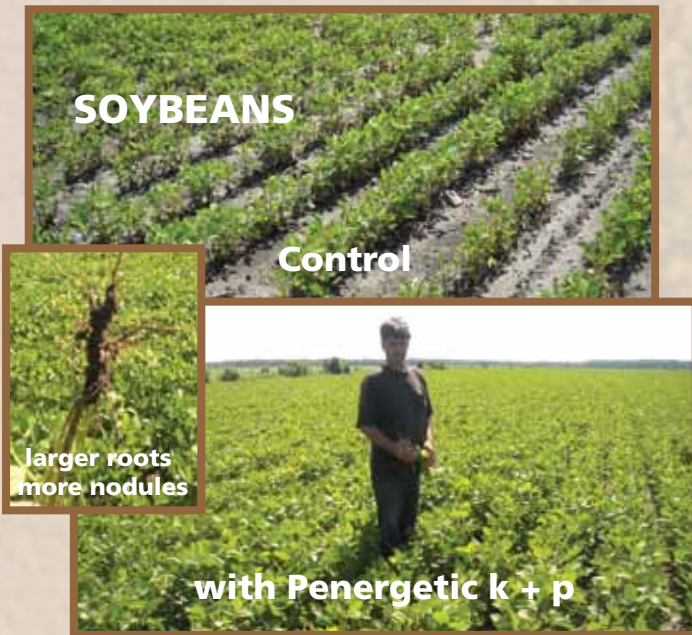


### Length of Roots Comparison (in cm)



\* = Conventional fertilizer application rate

## FIELD RESULTS: SOYBEANS // CORN (difference in height, development & consistency)<sup>1</sup>



<sup>1</sup> Seeding Dates: Soybeans - Apr. 6/09 // Corn - April 7/09. Photos taken: May 11/09.

## COMPOSTING



For further information contact:

## PENERGETIC SOLUTIONS

[jhenson@penergeticsolutions.com](mailto:jhenson@penergeticsolutions.com) (360) 348-2929 [www.penergeticsolutions.com](http://www.penergeticsolutions.com)