

# Penergetic Swine Manure Treatment Protocol

**Objective:** Using penergetic g, penergetic g(k) or penergetic g(k)(f) for treating liquid swine manure / slurry. [Also penergetic t (for pigs) can be administered as a swine feed additive.]

- Product Description:**
- penergetic g for pig slurry – will make manure homogenous and provide all the advantages associated with conversion to an aerobic condition
  - penergetic g(k) for pig slurry – similar attributes to pen g (for pig slurry), plus targeted at addressing carpeting / crusting situation
  - penergetic g(k)(f) for pig slurry – similar attributes to pen g(k) (for pig slurry) plus assists in addressing foaming caused by DDGS feed
  - penergetic t (for swine) – feed additive formulation to assist in better breaking down and utilizing swine feed ration

**Protocol:** The above products are intended to be used as part of a Manure Treatment Program. If product evaluation is desired, utilize a site with multi comparable barns and identify a treatment barn [to use Pen-g or Pen-g(k) or Pen-g(k)(f)] and a control barn with standard treatment. Utilize Pen-g(k) in high DDGS diet barn and Pen-g(k)(f) in a foaming barn. Monitor sites closely and often. Undertake detailed documentation and photos.

Also, evaluate Penergetic t (for pigs) as a feed additive. Again, ideally, utilize in a barn-to-barn comparison or in the whole operation. Due to small inclusion rate (3.5 oz. per finished ton of feed), this will most likely have to be an independent producer or a colony with their own mill. Alternatively, a feed mill can be called upon to include pen t (for pigs) into a swine producer’s feed rations.

**The Bottom-line:** Evaluation of penergetic g and t will demonstrate how they can improve a swine producer’s bottom line, address difficult manure treatment situations, increase nutrient availability, mitigating odor, reduce agitation and provide other benefits. The Penergetic Technology will also improve and impact the soil and crops.

**Product Usage Rate:**

Swine Manure	Kg per 1.0MM gallons annually	Kg per initial treatment	Kg per month
Pen-g	40.0 kg (4 boxes)	10 kg (1 box)	2.75 kg (11 mo x 2.75 kg/mo = 30.25 kg)
Pen-g(k)	40.0 kg (4 boxes)	10 kg (1 box)	2.75 kg (11 mo x 2.75 kg/mo = 30.25 kg)
Peng(k)(f)	40 kg (4 boxes)	10 kg (1 box)	2.75 kg (11 mo x 2.75 kg/mo = 30.25 kg)

## Swine Feed:

- penergetic t (for pigs)
  - Inclusion rate: 150 grams/finished ton
  - Better health and performance
    - Improves digestion
    - Supports the immune system
    - Reduces animal stress
    - Better feed conversion
    - Improved quality of fecal matter
  - Result: Higher production / lower cost