



## Anwendungsbericht/User Application Report

**Produkt/Product:**  
penergetic t

**Fachberater/Consultant:**  
Penergetic International AG, Switzerland

**Anwender/User:**

**Datum/Date:**  
2005

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### Pig fattening trail and blood analysis

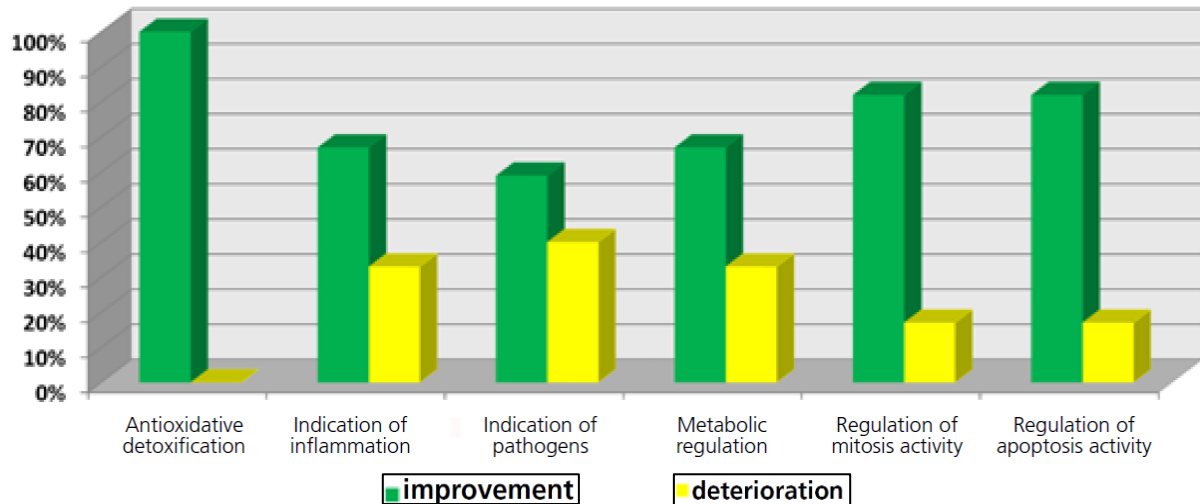
Number of pigs: 25 male and 25 female pigs  
Divided in: C-group = control group  
S-group = penergetic group  
Duration: 120 days

In a large-scale pig fattening trial under scientific conditions in Rostock (EQC technology), Germany, from October 2004 until February 2005, blood serum analysis were carried out on pigs to test the effectiveness of penergetic t. Two groups of 25 male and female pigs were compared over a trial period of 120 days. They were divided into two groups, C-group = control group and S-group = group fed with feed supplement penergetic t. Blood samples for evaluation were taken from the animals on 27.10.2004, 16.12.2004 and 12.02.2005. The amount of blood taken was 20 ml, of which 6-8 ml serum was tested. The parameters that were measured were:

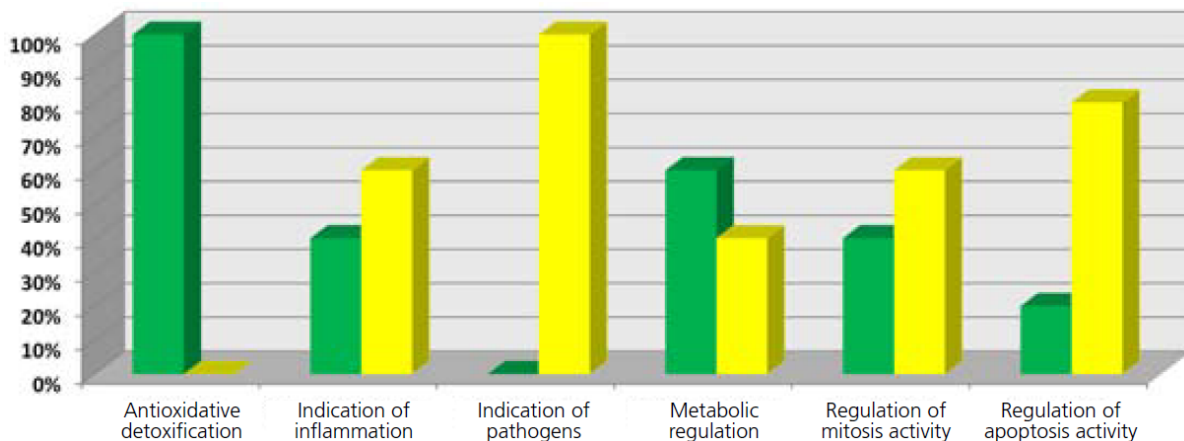
- Antioxidative detoxification
- Indication of inflammation
- Indication of pathogens
- Metabolic regulation
- Regulation of mitosis activity\*
- Regulation of apoptosis activity\*\*

The animals were fed a compound feed containing wheat, barley and soy. Test group S also received 50 mg of penergetic t per kg feed mixed into the feed.

### Animals with feed supplement (S)



### Control group (C)



#### The charts show that:

- The metabolic capacity for antioxidative detoxification is the same for both groups, neither of which received any antioxidative/anti-radical or detoxifying medication/active substances.
- The body's own readiness for inflammatory reactions is repressed or protection improved. Inflammatory reactions in the gastro-intestinal tract are blocked or reduced.
- Of particular significance is the immunological boost in the test group, because pathogens (viral, bacterial, mycotic) were reduced noticeably, by 58.3%.
- The conversion-promoting or -improving properties of penergetic t as feed supplement are less significant, but still higher (+ 6.7%).
- The regulation of new formation of cells (apoptosis) is particularly noticeable as being positively influenced. The regulation of orderly new formation of cells shows improvement of 43%, the regulation of the cell degeneration rate shows an improvement of 63%.

**This means:** The stability of the tissue, the elasticity of the bio-membrane, the permeability function as well as the regulating information transfer was significantly enhanced in the animals that received penergetic t. The S-animals were more stable in the face of all possible adverse influences than the C-animals. The feed supplemented with penergetic t led to improved general health in a third (33.1%) of the animals compared to the control group. It is concluded that the use of penergetic t as a feed supplement is justified, as it produces positive results.

### Looking at quality in the right way

It is not easy for test laboratories that are bound to a physical-chemical testing method to isolate the actual differences in quality in foodstuffs. In the LaboTech Institute in Rostock, (EQC technology) Germany for example, a study on penergetic t was carried out and in the final report the test and control groups were evaluated more or less equally in regard to physical development, development of systematic functions etc. In a letter to Penergetic, PhD Heinrich emphasizes that growth, physical development and development of systematic functions do not follow a homogeneous linear course. The laboratory established, for example, that in the Penergetic group, during the three phases of observation with supplemented feed, the live weight gain was lower than in the control animals. This could mean that the water-binding capacity was lower, but the somatic (=bodily) quality was higher. He concludes that the Penergetic group shows an improved metabolic regulation. Furthermore, use of the complex redox difference analysis showed that the regulation of antioxidative detoxification as well as the regulation of mitosis and apoptosis activity were significantly improved, namely by 25% in group 1, by 30.6% in group 2 and again by 25% in group 3. This increase indicated a significantly improved immune regulation and improved renewal of mucosa and tissue. During the final phase (90 – 120 kg live weight), the animals also showed clearly improved redox values.

#### **Distinctly positive results are:**

- The inhibition of inflammatory processes was improved by 51.7%.
- Pathogens in the blood of the pigs could be reduced by 36.6% and metabolic regulation was improved by 51%.
- Regulation of mitosis-activity was optimized by 45%.
- Regulation of apoptosis was increased by 36.6% compared to the control animals. The overall tendency was towards a slower weight gain in the Penergetic group. Only during the last phase (90 – 120 kg) did a relative acceleration in weight gain occur.

According to the available test results, a clear improvement in meat quality in the penergetic group became evident. Here, it is not so much the established feed conversion in relation to weight gain that counts, but rather the bio-parameters of the redox analysis that indicated an

intensification of vital functions during the first two phases of the study. This can be equated with a better vitality of the animals and an improved meat quality through an increased cell count per volume unit.

