



# Target

# Farm

# Action

A monthly digest of practical advice for pig farmers from BPEX

## Making energy a little more digestible . . .

The standard UK measure for the declaration of energy in pig feeds is digestible energy (DE), but what about gross and net energy, where do they come into the equation and what exactly do they each mean?

You've probably heard nutritionists talking about energy, read something in a magazine about it, or maybe just seen it on feed labels, but do you really understand what each means?

We thought it might be useful to give a simple guide to the different energy systems that you might come across, just in case you weren't sure!

### Gross energy (GE)

This is the energy that would be released from a feed if it was burnt; it indicates the total potential energy in a feed, but not the amount of energy available for a pig to use.

### Digestible energy (DE)

This is a step on from GE and takes account of the dietary energy losses in the dung; about 15% of the GE in the feed is lost in the dung.

### Metabolisable energy (ME)

This is a modified version of DE, taking into account energy losses through faeces, urine and gases. Energy lost through urine and gases are relatively small, unless very high protein feeds are fed. In practice ME is difficult to measure so approximations are usually made, based on ME being around 96% of the DE.

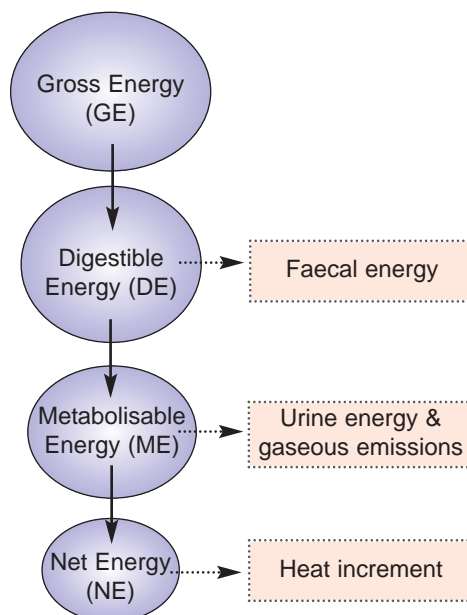
### Net energy (NE)

This measures the productive value of feed energy better than DE. Net energy is the energy left for growth, milk production and reproduction, after accounting for all energy losses. Not only does it account for faecal, urinary and gaseous losses, but importantly NE estimates the biggest energy loss by the pig, heat.

In comparison with DE, NE typically results in pig feed formulations that are lower in fibre and protein, and higher in starch and fat; it therefore alters the relative contributions of raw materials in a formulation.

Until about 10 years ago DE was the most common system used in the UK and most

producers and nutritionists still refer to DE values. However when feeds are formulated the majority of nutritionists now accept the benefits of the NE system, which in consequence is widely used.



## Profiting from prioritising piglet mortality

**Improving the number of pigs born alive, along with piglet survival rate through to weaning, has a significant impact on profitability.**

It is also one of the most straightforward areas of the pig herd to record and monitor, with everything you need to record happening over a short period of time (farrowing to weaning).

Recording the total litter size, born alive, and piglet deaths and causes allows you to analyse and highlight areas where you can improve by implementing changes in management practices.

Pre-weaning mortality and the probable causes of death provide valuable pointers as

to how survival rates can be improved. It is important not to rely on recorded data alone however, but to combine this with stock observations.

For example, your records might highlight that a major cause of death is overlying.



Stock observation will help you determine whether this is mainly due to chilling, starvation or another factor.

With less time now allocated for individual litter management, and the data collected providing important signposts for improving performance, it is important to reassess the cost benefit of strategic labour deployment. For example, allocating time for the adoption of colostrum management techniques and the establishment of newborn piglets.

For information on these topics see Action for Productivity 14 (Newborn management) and 17 (Colostrum: food for life) and look out for upcoming COP sheets.

Have you got copies of the most recent **Action for Productivity** factsheets? Improving your marketing returns (22) and Swine Dysentery (23) sheets are now available in hard copy and can also be downloaded from the BPEX website [www.bpex.org.uk/publications](http://www.bpex.org.uk/publications)

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