ZYMPEX®

Power-Enzymes

Impextraco®
Optimizing feed ingredients

Why Zympex®

“Since all plant material contains phytic acid, using phytase generates cheap phosphorus, while at the same time eliminating anti-nutritional effects and safeguarding the environment.

The enzymes degrading Non-Starch Polysaccharides allow the use of a wider range of feedstuffs, while improving digestibility and animal welfare.

Thanks to those natural tools, economic improvement and sustainability go hand in hand.”

Enzymes are very efficient tools selected from nature

Enzymes are the tools that accomplish biochemical reactions in living organisms. In digestive juices, the main functional ingredients are the (endogenous) enzymes, such as amylase, lipase and proteases. Those enzymes digest the major nutrient fractions from feed.

Since prehistoric times, enzymes have improved and diversified food: the yeast used in beer production functions by secretion of enzymes; the Flemish people excel by brewing a huge variety of beers. Similarly, also the fermentation processes occurring in the (hind)gut are enabled by microbial secretion of a wide range of enzymes; the gut microflora thus further processes substrates which remain undigested by digestive juices.

Pieter Breughel the Younger (Antwerp, 1564-1638): Two peasants with hen and spindle.
Besides a world-leading position in beer brewing, Flanders also produces the highest quality meat.
Such fascination for animal husbandry is already shown in this four centuries old painting.

By industrial cultivation of the appropriate micro-organisms, it became feasible to produce (exogenous) enzymes for addition to feed or food. By hydrolysing the highly viscous Non-Starch Polysaccharides, those enzymes improve digestion. However, even after hindgut fermentation, a very large fraction of fibre still is lost in the faeces, thus further highlighting the importance of well selected NSP degrading enzymes.
The presence of phytic acid was largely neglected until phosphorus pollution was penalised. Introducing the phytase enzyme realises important phosphorus savings, while also eliminating anti-nutritional effects.

For an ongoing success story: supplement your feed with Zympex® enzymes!

The Flemish region catalysed phytase use

It is a long Flemish tradition to breed the highest quality meat. The painting of Pieter Breughel the Younger showed this fascination. Still today, breeds such as Mechelse Koekoek (broilers), Piétrain (pigs) or BBB (beef cattle) continue improving the meat quality in hybridisation programs worldwide.

When environment protection policies imposed nitrogen and phosphorus limits, more than 30% of animal husbandry was due to disappear without remediation of the issue. The historical passion motivated the funding of phytase research to solve the problem. Two decades later, the same numbers of animals prevail in Flanders within pollution limits, while the sector has acquired a wealth of knowledge in using phytase.

Another historical breakthrough

Broiler diets used to contain mainly (white) maize and SBM, simply because their relatively low fibre content was best digestible. As still is the case in many countries, the Flemish region therefore had to import huge quantities of feedstuffs.

By the mid-nineties, the use of xylanases and β-glucanases allowed switching from imported, thus expensive corn to local, thus cheaper wheat and barley. Later on, the scope for NSP degrading enzymes was further enlarged to a wider range of feedstuffs (including corn/SMB diets and other vegetable protein sources) and species (also pigs, aquaculture, ruminants …).

Commitment to innovation

Apart from safeguarding water reserves, phytase improves sustainability by reducing the depletion of natural phosphorus resources: this micro-ingredient saves over a hundred times its own weight on mineral phosphorus! Already cost saving in phosphorus digestion, phytase also removes other antinutritional effects, thus materializing savings in energy, starch, protein and amino acids. Impextraco® keeps pace in improving phytase efficiency with a broad vision towards further optimization.

By favouring the use of local feedstuffs and reducing import, sustainability and economics go hand-in-hand. Impextraco®'s innovative approach towards vegetable proteins further enables the use of local feedstuffs.
Apart from economics and sustainability, NSP degrading enzymes also improve animal welfare: reduction of gut viscosity and flatulence, better litter quality and a positive influence on the microflora. Especially with Zympex® 008, this is translated in a better carcass quality.

Impextraco® remains committed to further innovation.

Thank you for your interest.

Please contact our Zympex expert team for a full technical product brochure, price request or more technical details.