



NOSHAN - Sustainable Production of Functional and Safe Feed from Food Waste

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Food processing activities in Europe produce large amounts of by-products and wastes. Roughly one third of the food produced in the world for human consumption every year (approximately 1.3 billion Tn) gets lost or wasted, according to a FAO-commissioned study. Such waste streams are only partially valorized. Food loss and waste also amount to a major squandering of resources, including water, land, energy, labour and capital and needlessly produce greenhouse gas emissions, contributing to global warming and climate change.

NOSHAN was launched in the summer of 2012 to develop process and technologies needed to use food waste for feed production at low cost, low energy consumption and with maximal valorisation of starting wastes materials.

The main focus of NOSHAN is to address the process and technologies needed to use food waste for feed and feed additives production at low cost, low energy consumption with maximal valorisation of starting wastes materials.

Nutritional value and functionality according to animal needs as well as safety and quality issues were investigated and addressed as main leading factors for the feed production using food-derived waste (fruit/vegetable/plant and dairy). Not only wastes were characterized for their nutritional potential, but also suitable technologies to stabilize them and convert them into suitable raw materials for bulk feed are investigated.

Obtaining functional feed ingredients (additives) from these wastes were also targeted as it was an important factor determining final feed cost and functionality in animals.

All initiatives have been validated in *in vitro* and *in vivo* tests to the final animal derived products intended for human consumption. Therefore, a whole value chain from starting raw materials to exploitable products and technologies was fully covered and monitored via LCA, and with further validation using the novel European Technology Validation platform.

Literatur

www.noshan.eu