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Biogas from Food Waste

Northern Ireland unveils food waste law

Food businesses producing more than 50kg of food waste per week in Northern Ireland have to separate and recycle waste under a new law that came into effect on 1 April, 2016. Published guidance describe a “food business” as being “an undertaking, whether carried on for profit or not, and whether public or private, carrying out any activity related to the processing, distribution, preparation or sale of food.” The guidance, published by the Northern Ireland Environment Agency, says the best way a business that produces food waste can promote high quality recycling is to segregate it and to ensure that separate collection is possible by a waste management service provider. This move by the Northern Ireland government is likely to be welcomed by the anaerobic digestion (AD) sector as it has repeatedly called on legislators to back separate food collections.

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Retail giant goes green by turning food waste into energy

Ten per cent of Sainsbury’s annual national gas consumption is being provided by a partnership processing its own food waste, the UK supermarket giant said. Sainsbury’s has linked up with UK-based food waste recycler ReFood to turn inedible food waste from two of its depots into gas, heat and fertiliser through AD. Nearly 50 million kWh of biomethane gas have been produced through the partnership.In the last year enough gas has been created to continuously power 5,000 homes for 12 months, which the supermarket says equates to 10% of its national gas consumption for the year. The green gas is then exported to the national gas grid by ReFood and, through a third party, is imported by Sainsbury’s stores nationwide – being used to generate carbon-neutral electricity for power and heating.

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Sustainable production of plastics and biogas from legume residues

According to data from Eurostat, in 2010, total waste production in Europe amounted 2.5 billion of tons, from which only 36 % was reused or recycled. The international project LEGUVAL is developing solutions for the valorization of by-products from the legume processing industry, to be used for plastic production. The project focuses on the extraction of the protein fraction from processed legumes, to be used as new raw materials to develop new biodegradable coatings and plastics. The leftover biomass of protein extraction could be used as a filler in polymer matrix, to improve the properties of plastic materials and as a substrate for biogas by anaerobic digestion. In particular, the potential of pre-treated lentils, peas, green beans and beans was studied and compared with virgin by-products. In general, higher gas production was achieved by by-products after the extraction treatment. Results showed a total cumulative biogas productions and a biogas composition comparable with values reported for the most common biomasses and organic wastes.

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