1 Introduction on bio-waste management in Hungary

According to the data from KSH (Hungarian Central Statistical Office) the MSW (Municipal Solid Waste) is decreasing from the year of 2006. In 2017, 3.75 million tons of MSW were generated in Hungary. This waste stream consists of 240 000 tons/year separate collected biowaste. The second potential stream is the 1 250 000 tons/year (calculated on 20 % d.m. content) municipal sewage sludge quantity. There is also 613 000 tons/year potential amount of agricultural residues and wastes from food industry suitable for aerobic and anaerobic treatment. Altogether, 2,1 million tons/year biological degradable waste is generated in 2017 except the green waste.

2 Legal framework for the organic waste stream and compost production

2.1 Waste Management Law

The requirements and the processes of modern waste management have set in force as a new waste management law in 2012. The No. 2012 CLXXV. National law from Waste management defines wastes and their types. Legal aspects of waste management, transfer and transport with responsibilities of waste holders are specified. The other related regulations are in the following.

2.2 Biowaste Regulation

The regulation No. 23/2003. - Technical requirements of biowaste treatment and composting defines compost. It also covers suitable input materials, hygiene requirements and the technical specifications of composting/biogas plants. It regulates only the establishment and operation of composting/biogas facilities but there is no regulations regarding the end product and quality assurance. With this content, it does not support the use of composts.

2.3 Regulation of waste management facilities

The 246/2014. (IX. 29.) Government regulation defines the rules for the establishment and operation of the waste management facilities. The 22-24 points of the regulation covering the operating regulations of composting plants. This affects the main parts of composting plants, the detailed operating manual and information for organic waste suppliers.

2.4 Fertilizer Regulation

Regulation No. 36/2006 - Permission, distribution and utilization of materials for growing yields regulates the use of all kind of soil fertiliser (chemical fertilizers, composts, organic fertilisers and growing media). It defines compost as a product and gives product specifications. It is allowed to produce compost products from sewage sludge. Limit values for trace elements and level of pollutants are specified. It regulates only the use of end product and not the production process.
2.5 Sewage Sludge Regulation

Regulation No. 50/2001 - Ruling the treatment and agricultural utilization of wastewater and wastewater sludge. Sewage sludge might be applied on arable lands for agricultural purposes if meets all requirements specified in the order of Government Regulation metals concentration limits and sanitary tests. Regulation No. 50/2001 regulates only sewage sludge treatment and utilization. Threshold values of toxic elements in raw materials and end products are specified. It is possible to use treated sewage sludge under individual permissions. Regulation makes a distinction between sewage sludge and composted sewage sludge.

3 Treatment of organic waste and MSW

3.1 Composting

The number of composting plants has increased in the past few years. According to the Hungarian Quality Compost Association non-official survey there are approximately 80 composting plants. The amount of produced compost is approximately 240 000 tons/year (KSH – Hungarian Central Statistical Office).

3.2 Mechanical-biological waste treatment

In order to meet the requirements of the EU Landfill Directive and to reduce the organic content of the MSW going for landfills, the Hungarian Waste Policy target the need for pre-treatment. In 2017 there were approximately 20 Mechanical-Biological Treatment plants in Hungary in operation.

3.3 Anaerobic digestion

In Hungary operate approximately 70 biogas plants in 2017 (MBSZ – Hungarian Biogas Association). Most of these anaerobic digestion plants use sewage sludge and agricultural waste like manure in combination with agricultural residues in total of 350 000 tons/year.

4 Quality assurance system and compost utilization

The Hungarian Quality Compost Association has already submitted many proposals for a compost quality assurance system, but unfortunately there is no any legal regulation yet. The future system will be similar to the German system of the BGK and will be based on the ECN-QAS.
5  Contacts and source of country information

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