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Lavigny le 14.11.2019 To whom it may concern

Testimony on the use of Xcelbio BioCatalyst

This letter demonstrates the significant benefits we have gained by using Xcelbio BioCatalyst technology at our Kompogas-type thermophilic biogas plant over the last 9 years. It is in particular;

- Reduced problem odours from the biogas digestate composting process that caused neighbourhood complaints.
- Biogas production has doubled since the introduction of the biocatalyst. A second biogas purification line was installed for methane injection into the local network.
- Increased waste treatment capacity, allowing for higher throughput and, therefore, increased entry fees.
- The composting time has been reduced while maintaining the quality of the final product. the biological modifications of the compost favour the use allowing the treatment of some polluted grounds (organic pollution) in complement of other products of depollution.
- The biology within the digester is very stable, allowing the rapid introduction of different wastes with a minimum of process disruption. It also results in a rapid recovery of production after a process interruption for example for maintenance.

The Kompogas biogas digester system as well as a methane concentration process (to produce methane for injection into the local grid) was installed in 2008. The plant was designed for the treatment from 12 to 15,000 tonnes depending on the organic material load of the products. The products include garden waste and agri-food waste.
Currently our digester ingests more than 20'000 tons of organic material, which is much higher than the planned factory size.

The increased capacity of the digester and a major source of income related to the increase in income from the finances of entries; the production of methane and its valuation also brings a profit higher than forecast. These two phenomena fully justify the investment to call Xcelbio BioCatayst.

The biogas / composting site produced unpleasant smells and many complaints from residents were received, despite the use of biofilters and a destructor.
odour based on essential oils. Mr. Jean-Daniel Chollet introduced me to the use of a natural biocatalyst! innovative developed in South Africa. We started on continuous dosing in the bio-digester in April / May2010. In a few months and after some adjustments in the operation, the frequency of complaints due to the smell has drastically decreased.

The digestion process has become regularized and has become more resilient. This allowed to increase the supply of the digester while maintaining the efficiency of the process. The limitation was no longer the waste treatment capacity, but the capacity to process waste biogas. It has been decided to increase the biogas processing capacity and to install a generator for domestic purposes.
This allowed to deal furthermore waste and increase biogas production to about 7500 Nm3 per day, double the production achieved in 2010 and well above the nominal capacity of design of 3750 Nm3 per day. Currently our digester ingests almost 20'000 tonnes of organic material while sizing provided a range between 12 to 14'000 tonnes depending on the load of organic materials products.

We have been using this technology for 9 years and are very satisfied with its advantages. We plan to continue using it for the long term.
We can strongly recommend this technology marketed by Xcelbio Ltd.