Agricultural Project in Uganda

Flexigester Treatment of Animal Waste in Kyenjojo, Uganda

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Animal waste and manure is a good source of biogas. By treating the waste the biogas can be used to cook with and the digestate produced used on the land. A Flexigester V10 was installed at a demonstration farm in Kyenjojo, Uganda where local farmers are trained as part of the Sustainable Agriculture Farming Initiative.

Paul Kyalimpa runs a demonstration farm for the Sustainable Agriculture Farming Initiative in Kyenjojo, near Fort Portal in Uganda. We first met Paul at a talk at the Centre for Global Equality in Cambridge as he is also part of the charity Afrinspire.

He had originally built a concrete anaerobic digester at the farm but it had stopped working as the gas leaked out of the concrete. We told him of our Flexigester and he was immediately interested in having one.

With the help of Butyl Products and Afrinspire we sent Paul a Flexigester V10 system and then visited Uganda to help him install it.

Paul has a herd of cattle on his farm and the dung from the cattle is ideal to put into the Flexigester. The Flexigester was installed in a trench in the ground but as Paul was worried about the security of the digester and a brick and concrete wall was built around the Flexigester to protect it and the inlets and outlets.

The cattle dung is collected from the cattle pens but it is too solid to flow into the digester. A concrete mixing tank was therefore built. The dung was placed in the mixing tank where it was mixed with grey water or digestate to achieve the correct consistency so that it would flow into the Flexigester under gravity.

Once the Flexigester was installed the gas pipe work was connected up from the digester to the gas storage bag. This is used to store the gas until it is needed. The gas storage bag was hung in the rafters of an out building.

The biogas produced by the system will be used in the kitchen by Paul's wife to cook meals on a biogas stove. The digestate from the Flexigester is to be used on the farmland to improve the nutrient status of the fields.