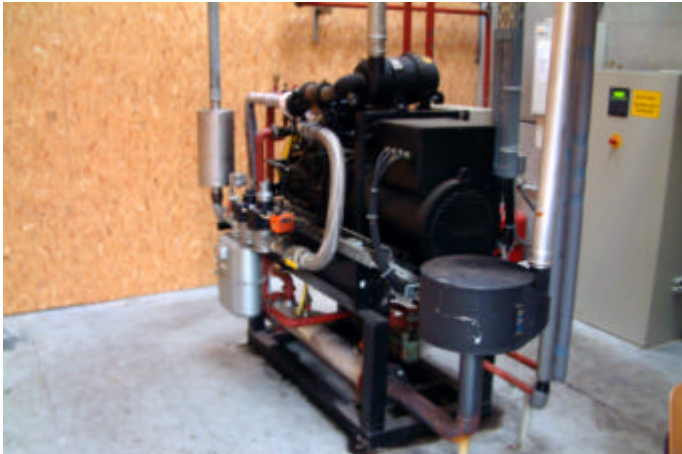


# Anaerobic digesting on experimental farms for dairy cattle and pigs

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## Introduction

The methane emission of manure can be reduced considerably by treating the manure in an aerobic digester. In the aerobic digester part of the organic substances are converted by micro-organisms into biogas. The biogas is utilized in a cogeneration unit to generate electricity and heat. In this way the generated energy is produced by a durable energy source which can replace energy from fossil sources. Anaerobic digesting also contributes to a better use of the nitrogen in the slurry. Considering the political developments regarding green energy, the emission of greenhouse-gasses, energy from biomass and the possibilities to digest other organic materials (co-digesting) the economic picture will be come more and more interesting for farmers.



## Goals

The Applied Research Division of the Animal Sciences Group investigates the possibilities of anaerobic digesting of manure and the effects on the environment for the agricultural practice. Interested parties are farmers, policy-makers, researchers and consultants. Therefore a lot of effort is put into demonstrations and transfer of knowledge to the target groups.

## Anaerobic digesting research

At the Centre for the Dairy Farming Research at Nij Bosma Zathe the anaerobic digester is used for carrying out detailed research into gas yields of cow manure and maize and mineral composition of the ingoing and outgoing streams. The set-up of the installation is very suitable for comparative research. Future research is aimed at co-digestion of farm crops, excess grass of nature reserves and the use of a fuel cell to produce more electricity per unit biogas.



At the Centre for Innovative Pig Farming Research at Sterksel the anaerobic digester is used for carrying out detailed research into gas yields and composition, reduction of greenhouse gas emissions, change in composition of the ingoing pig manure and economic evaluation. Future research is aimed at co-digestion of liquid co-products from the human food industries and integration of the system into manure management systems.

## Knowledge transfer

An important aspect of the research is knowledge transfer to farmers, consultants, municipalities and government agencies. Special excursions are organized which focus on specific items of animal husbandry and farm management, including anaerobic digestion of manure.

## Contact

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