

Conservation Practice Standard Overview

Anaerobic Digester (366)

An anaerobic digester is a facility that provides biological treatment of animal waste in the absence of oxygen.

Practice Information

An anaerobic digester can be used to capture the biogas from animal manure so it can be used for energy production. It can also be used to manage odors, reduce the effect of greenhouse gas emissions, and reduce the pathogens in the manure. These uses may be important where the community is changing from rural to urban or suburban.

In order to use this practice, there has to be a sufficient and suitable source of organic feedstock material. This means that the farm operation would have to be fairly large. A 400-cow dairy would be a good starting size.

This practice may require significant time for operation and management when the biogas is used for energy production. The operator can perform this work or it can be contracted to a consultant.

An anaerobic digester does not change the volume of the material or the amount of nutrients in the waste stream. The byproducts from the system will need to be utilized in accordance with the nutrient management plan.

Biogas is flammable, highly toxic, and potentially explosive. The design of the digester and gas components must be in



accordance with standard engineering practice for handling a flammable gas.

This practice has a minimum expected life of 25 years. Operation and maintenance of an anaerobic digester will be specific to the type of system selected.

Common Associated Practices

An Anaerobic Digester (366) is commonly used with conservation practices such as Waste Storage Facility (313), Waste Transfer (634), Solid/Liquid Waste Separation Facility (632), and Nutrient Management (590). Installation of an anaerobic digester must be included as a component of an Agricultural Waste Management System Plan.

For further information, contact your local NRCS field office.