

LET'S LEARN ABOUT ANAEROBIC DIGESTION



ANAEROBIC DIGESTOR



**AMERICAN DAIRY
ASSOCIATION INDIANA INC.**

WinnersDrinkMilk.com

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Did you know cow manure can be turned into useful energy?

Thanks in part to digesters, more dairy farmers are turning cow manure into something we can all use.

Anaerobic digesters are just one of the ways dairy farms contribute to healthy people, healthy communities and a healthy planet.

1

Cow manure, along with other biodegradable materials like **food scraps** and **organic waste**, is collected and fed into anaerobic digesters.

2

Anaerobic digestion is a natural process in which **micro-organisms** break down **organic materials**. The process must occur in a closed space with no oxygen. The materials are broken down in covered, airtight tanks by naturally occurring microorganisms, which creates **biogas**, **solids** and **liquids**.

BIOGAS



SOLIDS



LIQUIDS



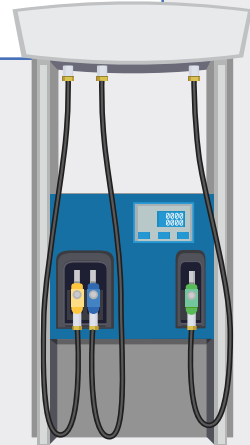
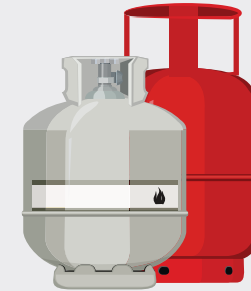
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Some farms use the biogas to **power generators** that create **electricity**. This electricity can also be connected directly to the power grid, or used to power the farm where it is created.



Biogas can be processed into **renewable natural gas** to create **power, heat** or even **vehicle fuel**. This is used in the same way as fossil-based natural gas, and can be fed directly into the pipeline grid or used in transportation.



Solids and liquids are collected to produce other materials, like **nutrient rich fertilizer** and **compost**, or dried to create **animal bedding**.

