



# FARM ECOLOGY

## Today's dairy farmers use sustainable farming practices

to protect the environment by conserving energy and water, reducing pollution, and building soil health. Soil health refers to the soil's ability to function as an ecosystem that can support plants, animals, and humans.



Lawnhurst Farms of Stanley, N.Y., use anaerobic digesters to convert methane, a greenhouse gas released from cow manure, into a source of electricity.

Look at the chart below. Read about the sustainable farming practices in the first column, and then decide if that practice helps conserve energy, conserve water, reduce waste and pollution, or build soil health by putting an "X" in the correct box. You may mark more than one box for each sustainable practice. Then, fill in a way you can help achieve those same environmental goals at home.

Sustainable Farming Practice	A. Conserves Energy	B. Conserves Water	C. Reduces Waste and Pollution	D. Builds Soil Health	E. What I Can Do
1. Cow manure is used in place of commercial fertilizer to improve soil quality.					
2. Methane digesters use the gas given off by cow manure as fuel to generate electricity.					
3. Some dairy farmers use a device called a plate cooler to cool the milk as it comes from a cow. Cold water passes right from the well through the plate cooler and absorbs heat from the warm milk. Farmers then re-use this water in different ways: as drinking water for cows (who prefer warm water); to cool the cows with a fine spray when it is hot; to wash farm equipment and clean the barn floor.					
4. Field cover crops keep soil and nutrients in place and reduce runoff.					
5. Solar panels on barn roofs generate electricity for use on the farm.					
6. Recycled materials such as shredded waste paper, dried manure solids, and even sand (which can be reused time and again) are used as bedding for the cows.					
7. Orange peels, cotton seeds, and other leftovers are mixed with grain to provide nutritious cow feed.					



AMERICAN DAIRY ASSOCIATION NORTH EAST



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