



# Discussion Topic

February 2009

A monthly resource for the Community Action Groups of Michigan Farm Bureau

## Making energy while the wind blows

For all the excitement out there about producing alternative energy, there's one important drawback. Where will the money come from? In the case of on-farm methane digesters, it's clear that the millions of dollars it takes to get started aren't available. Of the ones presently running in Michigan, grant dollars were a prerequisite. But will grant dollars go away if the process becomes commercially viable?

The digester at the denDulk dairy near Ravenna, for example, is relatively small, said Imad Mahawili, director of the Michigan Alternative & Renewable Energy Center (MAREC) at Grand Valley State University. However, he said, it is working superbly, producing .25 megawatts of power continuously from the manure produced by 1,000 cows.

The small digester cost \$2.7 million to build, but it is an anomaly in Michigan, Mahawili said.

"In Michigan, because the economics of the bioeconomy are so negative, there is no incentive for a farmer to make the investment. But in Canada and in other U. S. states, they are light years ahead of Michigan. In other places, digesters are not only viable, but they are profitable. But they won't be in Michigan until the laws change."

Laws are gradually coming around, and one has the potential to solve another on-farm problem. Public Act 311 of 2008 is now law, allowing disposal of dead animals in methane digesters. But before digester operators begin to think that they can make a little extra cash by accepting carcasses that otherwise must be buried or sent to a landfill, remember the delicate balance of feedstock into digesters, Mahawili said.

"If you mix dairy manure with fatty acids and protein, the energy content from a digester goes up another 2 percent," he said. "But the animal would have to be ground, pretreated and mixed in a certain ratio with the other ingredients. It's not easy, but it's very possible and energy-efficient. We've done no financial analysis on it, though."

The more economical choice for many farmers, said Matt Kapp, Land Stewardship Specialist with Michigan Farm Bureau, is to explore "small" wind energy for on-farm use, or increase the alternative energy grid by offering land for commercial wind projects. However, he said, use caution when signing wind lease contracts, and be sure to calculate "pay-back" time for alternative energy investments.

"Nothing is fool-proof at this point, but I think we're heading in the right direction," Kapp said. "We may have to be patient, because energy independence is going to take a long time and a lot of investment money. But in the long run, it will be worth it to wean ourselves from the grip of foreign oil."

### QUESTIONS

- 1. How can county Farm Bureaus encourage increased investment in alternative energy?**
- 2. What is an acceptable time for an investment in alternative energy to pay for itself? Five years? 20? What does it need to be to gain acceptance by the public?**
- 3. What is the most viable, most efficient and longest-lasting alternative energy source? When can you expect it to be in common use?**



**CONTINUED**

