Massachusetts Farm Energy Program
September, 2014

Why Contact the Massachusetts Farm Energy Program?

This maple syrup was produced with energy efficient equipment at Williams Farm in Deerfield. The equipment was purchased with help from the Massachusetts Farm Energy Program.

The Massachusetts Farm Energy Program can help you:

- Save money
- Replace your old, inefficient heating system
- Install energy efficient lighting, fans, or refrigeration
- Insulate your building
- Use solar energy for your hot water or electricity

CONTACT the Massachusetts Farm Energy Program staff TODAY! We'll walk you through the steps to get EXPERT ASSISTANCE and FUNDING too!

Call 413-727-3090

E-mail us at info@massfarmenergy.com

OR

Visit our website: www.massfarmenergy.com, submit a Request Form and **WE will contact YOU**.

Have You Heard?

Northeast Greenhouse Conference and Expo 2014:
November 5 - Mass Mutual Center, Springfield, MA.

Greenhouse at Full Bloom Market Garden, Whately

Tips for Saving Energy and Money: Maple Producers

Take steps TODAY to Save Energy and Money next spring!

Maple sugar producers can decrease costs through energy conservation and efficiency. Here's how:

- **Learn about best practices** – and what's most applicable to your operation.
- **Have an energy audit** to determine the best, most cost-effective measures for you.
- **Reduce fuel costs** associated with evaporation with one or more of the following:
  - **A pre-heater** to reduce fuel consumption by up to 13%. A maple sugar evaporator equipped with a pre-heater and heat exchanger pre-heats sap before full boiling, using heat captured from the evaporator's steam exhaust. When cold sap meets steam, the sap is heated and the steam condenses back to water. The resulting water can then be used to clean equipment. Since pre-heated sap takes less time to boil water off, the evaporator uses less energy and saves money.
  - **A steam-enhanced unit** to reduce fuel use by up to 40%. Steam-enhanced units operate with the same basic idea of cold sap meeting steam and producing condensed water, but have the added feature of introducing high pressure air to the system. The air agitates the sap, gathers humidity, and eliminates water at a temperature lower than the boiling point. These units cause the sap to be pre-heated and concentrated before boiling, which saves both time and energy.
  - **A reverse osmosis (RO) system** - Used commercially in maple syrup production since the 1970s, an RO system uses filter membranes that allow water to pass through but not sugar molecules. By removing the water and concentrating the sap, it's possible to reduce the fuel needed to evaporate the water by 65% or more!
- Get information about **grants and financial incentives available!** There is funding available to help pay for an energy audit and energy efficiency improvements!

Reverse Osmosis Boiler at Paul's Sugarhouse, Williamsburg

Visit the Technical Resources section of our website for more details about energy efficient maple sugar evaporators. Visit the Energy Efficiency Tips for Farms section for lots of other good information about ways to save energy (and money!)

Center For EcoTechnology
320 Riverside Drive 1-A
Northampton, Massachusetts 01062
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