“Learning What's On Our Lines” to Maximize Farm Energy Efficiency with Rural Electric Cooperatives
What is this really about?

• Existing efficiency resources:
  – EnergyWise Rebates through local utility
    • Mostly residential
  – USDA Energy Self-Assessment
    • [www.ruralenergy.wisc.edu](http://www.ruralenergy.wisc.edu)

• The Gap: Very little programming targeted at the farming community.
How did we do this?

We knew there had been a lot of farmers in McLeod Co-op Territory, but we needed to know...

• How many are still farming?

• What kind of farming are they doing?
How we asked them?

• Leveraged the style of the “Customer Satisfaction Survey”

• Scantron Bubble Sheet – Quick & Easy
  – “Are you actively farming?”
  – “What kind of operation are you?”
    • Dairy, Grain & Drying, Poultry, Beef, Swine, Other

• $100 Gift Card as incentive
2500 “Farm-Residential” Accounts

936 Total Respondents

- 427 Actively Farming
- 509 Not Farming
What kinds of farms?

427 Active Farm-Residential Accounts

- 48% Grain
- 6% Dairy
- 5% Poultry
- 18% Beef
- 23% "Other"

How the Percentages are broken down
An In-Depth Look

• Project Team developed 8 individualized one-page surveys:
  – Farm-specific
  – Technology-specific

• Point was to identify what efficient equipment:
  – is missing and/or
  – is past its prime
What did the surveys look like?
What did the surveys look like?

Dairies

Hard Size: No. Milking Cows: ____________
        No. Other Cows: ____________
Milk vacuum pump runtime: ________ hrs/day

Specific to your dairy farm:
Do you have LP/Natural Gas/No NG but Access to?
Avg. monthly electric bill: $_________
Avg. monthly Nat Gas/Propane: $_____/_____
Bills include house or just farm? Y/N

In the last 10 years have you installed any of the following?

1. Variable Speed Drive on Vacuum Pump? Y/N

2. Variable Speed Drive on Milk Pump? Y/N

3. Plate Cooler/Freeze Cooler? Y/N

4. Scroll-type Refrigeration Compressors? Y/N

5. Refrigeration Heat Recovery? Y/N

6. Low/No Energy Waterers? Y/N

7. Tractor Block Heater Timer? Y/N

8. High Efficiency Lights? Y/N
   (If so, what kind? T-8, T-5, LED, etc.) ____________________

Do you use space heaters to supplement winter heating in the milk house? Y/N

What type of milk line water heating do you have? Electric LP/Natural Gas

How old is/are your water heaters? 1-5 yrs 5-10 yrs 10-20 yrs >20 yrs
Looking ahead......

• Now we have the data we wanted, but what do we do with it?

• Analyze it!

• Now we’ve identified cost-effective technologies for farmers and are developing marketing materials and rebate programming to target each facility.