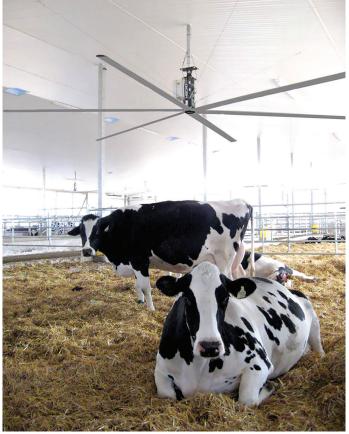


### **VENTILATION & CIRCULATION**

#### **High Volume Low Speed Fans**

High Volume Low Speed Fans
 \$35/ft.

Must be a ceiling-mounted fan with a diameter of 10′ or more. Rebate is based on fan blade diameter in feet.



MacroAir

Research has shown that a cool cow is a productive cow and that milk production increases up to two pounds per cow when they are in a comfortable environment.



Energy-efficient HVLS fans keep cows cool by moving air more efficiently through barns and open-air sheds while keeping bugs, birds and dust under control.



ENERGY STAR<sup>®</sup> energystar.gov

lowa State Extension extension.iastate.edu

> BESS Labs bess.illinois.edu

For more energy saving opportunities, contact Maquoketa Valley Electric Cooperative about available residential and commercial rebates.

All programs subject to change at any time, without prior notice.

Maquoketa Valley Electric Cooperative



mvec.coop

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This institution is an equal opportunity provider and employer.



# 2023 AGRICULTURAL REBATES





2023 MAQUOKETA VALLEY ELECTRIC COOPERATIVE REBATES

Contact the cooperative for the complete list of rebates and qualifications

# LIVESTOCK EQUIPMENT

### **DAIRY OPERATIONS**

#### **Livestock Waterers**

Rebates are available for efficient waterers with tanks constructed of plastic, a minimum of 2 inches of insulation and lid covers.

Electric Heated Livestock Waterers	\$50 each
(≤ 175W per trough opening)	

#### **Farrowing Equipment**

Efficient heating pads and controllers help reduce energy use and improve animal health.

<ul> <li>Single Crate Heating Pads         (≤ 85W)</li> </ul>	\$25/pad
<ul> <li>Double Crate Heating Pads         (≤ 170W)</li> </ul>	\$50/pad
<ul> <li>Heat Lamp or Pad Controller</li> </ul>	\$50/controller



Energy-efficient equipment and technologies can help reduce energy expenses and improve productivity.

#### **Dairy Heat Reclaimers**

Heat reclaimers can reduce water-heating energy usage by 60% to 80% by recovering the heat discharged from

#### Dairy Milk Pre-Coolers

dairy refrigeration equipment.

\$4 per milking cow

Reducing the temperature of milk with "pre-coolers" helps reduce refrigeration energy costs by 20% to 30%.

#### Variable Speed Dairy Vacuum Pumps \$40/horsepower

Variable speed drives (VSDs) used with dairy vacuum systems can reduce electricity use by as much as 60%.

#### Dairy Scroll Compressor

\$250 each

\$2,000 each

\$5 per milking cow

Refrigeration systems with scroll compressors are 15% to 20% more efficient than traditional reciprocating compressor systems. *(must replace reciprocating compressor)* 

The maximum rebate is \$2,000 for each equipment type.

#### Automatic (Robotic) Milking System

The maximum rebate is four installed systems per calendar year.

## **VENTILATION & CIRCULATION**

Farm animals require ventilation and air movement for comfort and productivity year-round. Rebates are available for high efficiency systems that could help save energy costs of up to 30% a year.

#### Ventilation and Circulation Fans

The operating costs of a ventilation system will depend on the efficiency of the equipment, configuration of the fans, proper installation and airflow control.

Ventilation Fans (fan blade diameter)	\$3/inch
Ventilation Thermostat Controller with Humidistat	\$25 each
Circulation Fans (fan blade diameter)	\$1/inch

#### **Ventilation Fan Efficiency Requirements**

(must be BESS Labs rated at 0.10 in. static pressure)

- 14-23 inch min. 10.5 CFM/Watt
- 24-35 inch min. 13.0 CFM/Watt
- 36-47 inch min. 16.5 CFM/Watt
- 48-49 inch min. 18.5 CFM/Watt
- $\geq$  50 inch min. 19.5 CFM/Watt

#### **Circulation Fan Efficiency Requirements**

(must be BESS Labs rated at thrust/kW requirements)

- 12-23 inch min. 11.0 lbs. thrust/kW
- 24-35 inch min. 15.0 lbs. thrust/kW
- 36-47 inch min. 18.5 lbs. thrust/kW
- $\geq$  48 inch min. 23.0 lbs. thrust/kW

Rebates are limited to \$5,000 per account for all ventilation and circulation equipment.