

DAIRY HERD MANAGEMENT

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PROFIT TIPS

“Switch on” energy savings with the right lighting

HOW YOU LIGHT A ROOM MATTERS, AND IT'S NO DIFFERENT ON A DAIRY FARM OR IN A MILKING PARLOR. ENERGY-EFFICIENT lights save energy and costs. And, they are being featured in a growing number of energy-conscious dairy farms across the country. According to EnSave, Inc., national farm-energy-efficiency specialists, research proves that the right lighting improves the lives, efficiency, safety, and comfort of both people and cows, while saving on energy cost.

- A unit of light is one “foot-candle” or lumen lighting each square foot of work area. Dairy farms typically use 20 lumens; milk parlors and pits use 50 lumens.

- By switching from T-12 to T-8 fluorescent light fixtures, the New York State Fair milking parlor decreased the amount of energy used to light the area by about 20 percent.

- Similar fixture changes could annually save an average 110-cow dairy farm, lit for 8 hours per day, nearly 2,000 kilowatt hours or an estimated \$260 in the milking parlor.
- If the same energy-efficient lights were installed in other areas of the 110-cow dairy, energy savings could increase an additional 10,000 kilowatt hours or an estimated \$1,680 in total annual cost savings.

HOW REAL SAVINGS LIGHT UP AN AVERAGE NY DAIRY FARM (110 COW HERD)								
AREA	CURRENT LIGHTING FIXTURE	RECOMMENDED REPLACEMENT FIXTURE	NO. LIGHT UNITS	ESTIMATED ANNUAL ELECTRICITY SAVINGS (KWH)	ESTIMATED ANNUAL ENERGY SAVINGS (\$)	ESTIMATED COST TO FARM	DAILY RUN HRS.	ESTIMATED PAYBACK (IN YEARS)
CALF BARN	100W INCANDESCENT 100W TOTAL INPUT WATTS	23W CFL 23W Total Input Watts	5	422	\$59	\$45	8	0.6
YARD LIGHTS	250W MERCURY VAPOR 250W TOTAL INPUT WATTS	150W PSMH 150W TOTAL INPUT WATTS	2	1,112	\$156	\$370	8	2.3
FREE STALL	400W STANDARD METAL HALIDE 456W TOTAL INPUT WATTS	6-LAMP, 4FT. T8, 32W BULBS, 228.8W TOTAL FIXTURE WATTAGE	12	8,241	\$1,154	\$3,480	12	3.0
PARLOR	4-LAMP, 4FT. T12 40W BULBS, 152W TOTAL INPUT WATTS	APPROPRIATE T8 OR T5 FLUORESCENT FIXTURE*	14	1,864	\$261	\$2,394	8	9.1
HOLDING AREA	2-LAMP, 4FT. T12 40W BULBS, 76W TOTAL INPUT WATTS	APPROPRIATE T8 OR T5 FLUORESCENT FIXTURE*	6	399	\$56	\$513	3	9.1
TOTALS				12,038	\$1,685	\$6,802		4.0