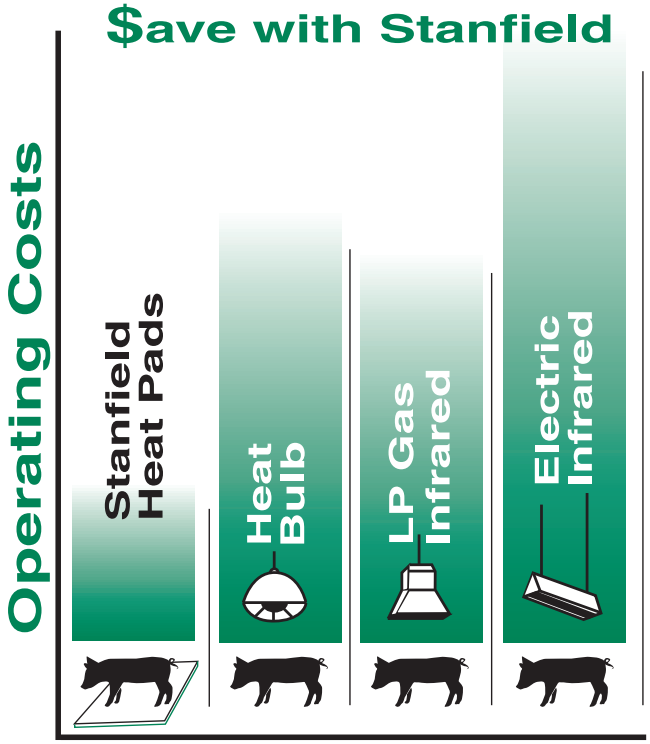
INCREASE PROFITS BY SAVING ENERGY

Every time you use Stanfield® Heat Pads, you reduce your energy costs and increase your profits.



In Table A, we have shown how the usual unit of energy that is sold can be converted to BTU values. By converting to BTU values, various energy types can be compared on an equal basis - the cost per 1,000 BTU's.
Caution must be exercised in using Table A, because the Total BTU Content shown is not always the useful BTU content; for example, some inefficiency is always involved in converting fuels to heat energy because: 1) the fuel is never completely burned; and, 2) some heat escapes with the hot combustion gases. The efficiency conversion, therefore, depends partially on equipment design, which can be controlled by good engineering and regular maintenance during use, and partially on the naturally produced combustion products, which carry away some of the heat energy. The production efficiency of any heat generated by combustion must be known to make accurate energy comparisons.

The BTU value of corn shown in the table is the cost of producing one bushel of corn. It is added for comparison purposes only, because of course, the manager can force animals to generate their own heat and pay the energy cost of providing more feed.

The most costly production input today is ENERGY.
In agriculture, energy is the major business expense. Efficient use of energy is one of the signs of good farm management. Fortunately, energy is generally available in many forms and from many alternative sources. A cost-conscious manager is presented with a choice of energy types and a variety of equipment with which to utilize this choice.

To aid you in making these choices and to optimize your energy management program, we have gathered together energy conversion factors in Tables A and B for your convenience. We also show you some typical anergy cost calculations. The tables contain often-used conversion constants that permit comparison of one type of energy with another. The sample cost calculations show how to use the constants and typical energy costs to generate comparisons, in this case for several types of supplementary creep heat for baby pigs.

Similar calculations can be used anytime energy comparisons are made. Just substitute local energy costs and the efficiency and rate of consumption for any particular operation. Then generate your own power comparison chart. Money-saving energy-management decisions then become easy to make.

TABLE A
HEAT ENERGY VALUES OF COMMON FUELS

TYPE OF ENERGY	UNIT	TOTAL BTU CONTENT*
Electricity	kwh	3,412
Natural Gas	cu. ft.	1,000
Fuel Oil, No. 2	gal.	140,000
Propane	gal.	91,500
Butane	gal.	102,000
Coal	ton	24,000,000
Corn	bushel	106,000

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SAMPLE ENERGY COST CALCULATIONS FOR SUPPLEMENTARY HEAT FOR BABY PIGS

GENERAL FORMULA

Power Rate of Device X Time Unit of Operation X Cost per Energy Unit = Cost Per Time Unit

HEAT BULB

$$\frac{\text{250 watt bulb}}{\text{litter}} \times \frac{\text{24 hr.}}{\text{day}} \times \frac{\text{1 kwh}}{\text{1,000 watt-hr.}} = \frac{\text{6 kwh}}{\text{litter-day}}$$

$$\frac{\text{6 kwh}}{\text{litter-day}} \times \frac{\text{7.5 cents}}{\text{kwh}} = \text{45c/litter-day}$$

ELECTRIC INFRARED

$$\frac{\text{800 watt}}{\text{2 litters}} \times \frac{\text{24 hr.}}{\text{day}} \times \frac{\text{1 kwh}}{\text{1,000 watt-hr}} = \frac{\text{9.6 kwh}}{\text{litter-day}}$$

$$\frac{\text{9.6 kwh}}{\text{litter-day}} \times \frac{\text{7.5 cents}}{\text{kwh}} = \text{72 c/litter-day}$$

PROPANE INFRARED

$$\frac{\text{4,500 BTU*/hr.}}{\text{2 litters}} \times \frac{\text{24 hr.}}{\text{day}} = \frac{\text{54,000 BTU}}{\text{litter-day}}$$

$$\frac{\text{54,000 BTU}}{\text{litter-day}} \times \frac{\text{66 cents}}{\text{gallon propane}} \times \frac{\text{1 gal. propane}}{\text{91,500 BTU}} = \text{39c/litter-day}$$

* Rating varies between manufacturers. Final values must be adjusted for conversion efficiency, thus a 75% efficient burn for this particular heater raises the daily cost:

$$\frac{\text{39c/litter-day}}{\text{0.75 efficiency rating}} = \text{52c/litter-day}$$

STANFIELD HEAT PAD (Model S2B3)

$$\frac{\text{80 watts}}{\text{litter}} \times \frac{\text{24 hr.}}{\text{day}} \times \frac{\text{1 kwh}}{\text{1,000 watt-hr.}} = \frac{\text{1.9 kwh}}{\text{litter-day}}$$

$$\frac{\text{1.9 kwh}}{\text{litter-day}} \times \frac{\text{7.5 cents}}{\text{kwh}} = \text{14c/litter-day}$$

In these calculations, we have used $0.075 per kwh and $0.66 per gal. propane. You can use your own local values. Extended to total annual expenditures, the annual cost of supplementary heat can quickly justify investing in Stanfield® Heat Pads. Most production managers have found that Stanfield® Heat Pads permit unexpected additional savings in energy because:

1) You can reduce space-heater thermostats without adversely affecting baby pig or nursery pig performance, while the conditions for optimum sow performance are actually improved during lactation, and feed intake and growth rate are increased in lactation and nursery.

2) the greater survival rate and rate of gain of baby pigs raised on Stanfield® Heat Pads improves feed efficiency (remember, corn is energy!) and your productivity.

TABLE B
COMMONLY USED CONVERSION FACTORS

TO CONVERT FROM	TO	MULTIPLY BY
Watt/hr	Kilowatt/hr (kwh)	0.001
Kilowatt/hr	BTU	3,413
Horsepower/hr	BTU	2,545

We encourage you to become an active energy manager.

Prepare for tomorrow by conserving today.

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