



## MicroZone Automatic Lamp and Mat Controller, Novonix Corporation: A Herdstar Company



Robert Baarsch explains how the MicroZone product helps keep piglets comfortable.

The MicroZone automatic heat lamp and heat mat controller adjusts the power supplied to heat lamps or heat mats based on farrowing room temperature and the age of the piglets.

As piglets get older and have less need for supplemental heat, the temperature control can be lowered in specific increments. "Producers can set the system up to drop the temperature by one-half degree each day, for example," explained Robert Baarsch, HerdStar president. "The result is modulating zone heat based on the age of the pig and room temperature."

Baarsch said because the temperature under the heat lamps or on the heat mats is adjusted to maintain a comfortable microenvironment for the piglets, they will lay in the creep area away from the sow. This reduces their risk of being laid on or injured, and can reduce prewean mortalities in some operations.

Power modulators automatically regulate the power from 0 to 100%. A readout on the controller unit allows producers to instantly check the amount of power supplied to heaters, the measured room

temperature, percent power savings and the temperature control band settings. Overload protection shuts the unit off and re-starts it, if necessary. Power is slowly restored after an outage to reduce peak demand on the power utility or on a backup generator. The control is protected against transient voltage spikes, thermal overload and short circuits in heating devices.

One MicroZone Controller unit can manage up to 12 power modulators. Each modulator operates one 20-amp circuit, which is equal to 1,920 watts of heat lamps or mats. The controller unit costs \$129. It would cost around \$719 to install the units in a four-circuit room, with each circuit handling approximately 12 crates, explained Baarsch.

Uttecht asked where the ideal location would be for mounting the controllers, and wondered if the units could withstand power washing.

"Producers like to have the controllers mounted in the hallway so they can easily monitor each room," explained Mark Jaeger, Novonix president. "The units

are enclosed in corrosion- and water-resistant housings and can be low-pressure washed."

Because the MicroZone system adjusts the temperature automatically, producers can save the time and labor previously spent manually adjusting heat lamp height. Anderson asked what heat lamp height is recommended with the system. Baarsch said lamps with a 150-watt bulb should be positioned between 18-20 in. from the floor.

Uttecht acknowledged that sometimes heat lamps don't get adjusted at the optimal time. Johnson agreed, noting the importance of paying close attention to sow and piglet temperature when working to prevent health problems. "Being able to adjust the heat lamps throughout the room would help reduce the possibility of mis-management," he said.

As Anderson noted, "This looks like a simple, yet innovative way to fill a real need in the industry. It should benefit sows, piglets, employees and the bottom line. It seems to combine productivity with economic enhancement."

Because heat lamps and heat mats use around 40% of the power, reducing the power between birth and weaning can result in significant savings per site, and in many cases the savings will pay for the units in one year, Jaeger noted. "Power companies in some states recognize this as an energy-saving device and offer rebates with it," he said. He urged interested customers to talk to their power companies to see if they can get rebates in their area.

Funk noted that increased bulb life, which would result from using the system, could be an additional cost advantage to producers.

The MicroZone Controllers come with a one-year warranty.

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