

Ventilation Management & Reducing Energy Costs

Jay D. Harmon, Ph.D., P.E.

Professor

Agricultural and Biosystems Engineering

Iowa State University

Checklist

- Ventilation Management
 - Select the proper temperature
 - Watch pigs for comfort level
 - Look for drafty conditions or cold surfaces
 - Can zone heat be used?
 - Select proper ventilation rate
 - Is the humidity 50 to 60%?
 - Are the gas levels acceptable?
- Insulation
 - Value may be in reducing condensation and chill
 - Perimeter insulation might be the best investment
- Curtain Management
 - Curtain should overlap 3 inches
 - Check for leaks, sags
 - Check end pockets
 - Look for rodent damage
 - Check limit switches
- Heater and Controller Management
 - Take time to listen for heater/fan cycling
 - Check heater offset
 - Avoid small (< 1 F) differentials
- Fans
 - Select efficient fans
 - Clean pit fans including fan transitions
 - Tighten belts
 - Check shutters
- Heat Lamps
 - Select 175 W Heat lamps
 - Adjust height properly
- Lighting
 - Use compact fluorescent bulbs or other efficient lights
- Check with your energy suppliers before purchasing equipment.
 - Fan rebates
 - Lighting rebates
 - Heat Lamps rebates
 - Insulation rebates
- Consider Energy Management Programs
 - Backup generation