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Poultry Housing Tips

Cold Weather Check List

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Cold weather is just around the corner. By spending a few hours now "winterizing" your poultry houses, you can help insure that your birds will stay warm this winter with a minimum amount of fuel usage. The following are a few items you may want to check.

- ❒ Tighten or replace curtain straps. If the side wall curtains are not held snugly against the side wall, a significant amount of heat will be lost on cold windy days. A one inch gap between the curtain rod and the side wall can increase gas usage by as much as a gallon an hour (Side Wall Curtains and Air Leakage. October, 1992).

- ❒ Adjust curtain strings so that side wall curtains close evenly. If the strings are not adjusted properly, curtain overlap may not be sufficient in some places to prevent unnecessary heat loss.

- ❒ Patch holes in ceiling insulation. A hole in the ceiling is a direct path outside for the warmest air in your house. Ten square feet of holes in the ceiling can cost a producer $100 a week during brooding. Though you may not have that many holes, the heat loss through even a few small ones can add up.

- ❒ Make sure static pressure controllers read zero when fans are off. If the pressure gauge on a side wall inlet machine, does not measure house static pressure accurately, inlets may open too much causing drafts and excessive fuel usage or may not open enough resulting in poor air quality.

- ❒ Clean furnace/brooder burner orifices. Furnace/brooder orifices can corrode over time. This can lead to reduced heat output or improper fuel air mixtures. If you have cleaned the orifices a number of times over the years, you may want to consider replacing them because the orifice size tends to increase after numerous cleanings.

- ❒ Check rubber gas lines for cracks or nicks.

- ❒ Clean the blower on forced air furnaces. The fins on a furnace blower can become clogged with time which reduces the ability of the furnace to distribute warm air within the house.

- ❒ Tighten or replace belts on timer fans. Belts can quickly become loose on timer fans due to frequent stopping and starting. If the belts are loose, the amount of fresh air brought in may not be sufficient to keep ammonia and moisture levels to a minimum.

- ❒ Place circulation fans on a timer. Directing circulation fans toward the ceiling during cold weather helps to move hot air off the ceiling down towards the birds. Placing them on a timer will allow you to better manage the amount of air movement in the house as well as minimizing electricity usage (Negative Pressure Ventilation Without Adjustable Air Inlets. October, 1994).

- ❒ Place a plastic sheet over exhaust fans which will not be used during cold weather. Spaces between and around fan shutter fins may equal almost one square foot of cracks. This can lead to cold spots near unused exhaust fans during cold weather. This is especially true in tunnel-ventilated houses.

- ❒ Replace ten-minute timers with five-minute timers. A five-minute timer reduces variations in house temperature and air quality as compared to a ten-minute timer. Furthermore, five-minute timers may decrease fuel usage (Ten-minute Vs. Five-minute Interval Timers. February, 1995).

- ❒ Clean screens over side wall inlet openings. Dirty screens over side wall inlets reduce the distances that air can be drawn across the house by 20 percent or more. This reduces the amount of heating the incoming air receives before it drops to the floor.

- ❒ Make sure that side wall inlets open uniformly. If the inlets open on one end of the house more than the other, house temperature and air quality can vary significantly.

- ❒ Check the gas pressure. If you feel that you're not getting enough heat out of your furnaces or brooders, you may want to have your gas company check the pressure in your gas lines. If the gas pressure is low, the output of your heaters will be reduced. Most heaters require a gas pressure between nine and eleven inches of water column. (You should check with the manufacturer of your brooder/heater for the optimum gas pressure.)

- ❒ Seal end and side wall doors tightly.

- ❒ Check curtain drops and alarm systems. With larger birds, alarms should be set between 85 and 90^{o}F.

- ❒ Remove all old litter and replace with four inches of fresh shavings. Old litter produces ammonia as you heat your house during brooding. Ventilation rates have to be increased to rid the house of excess ammonia, increasing fuel usage.

- ❒ Patch any holes in the brooding curtain. If your curtain has large holes or rips it should be replaced. Holes in the brooding curtain will allow minimum ventilation fans to pull ammonia laden air from the nonbrooding end into the brooding end.

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