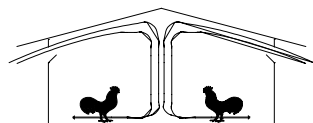




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# *Poultry Housing Tips*

## *Brooder Gas Hose Support Springs*

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A potential problem with brooders of all types is that the flexible gas line supplying the brooder can pinch partially closed where it attaches to the control valve. This can present a number of problems. First, and most obviously, a pinched hose can reduce gas flow to the brooder reducing heat output of the brooder, leading to cool chicks in the vicinity of the brooder. Reduced gas flow to a brooder can lead to poor flame quality, increasing the possibility for the production of carbon monoxide which is not only dangerous for the birds but farm managers as well. Last but not least, repeated flexing of the gas line at the control valve due to the movement of the brooder (raising, lowering, swinging when tunnel-ventilating) can lead to the hose cracking where it attaches to the brooder and the possibility of a fire.



Figure 1. Fire caused by gas leakage where hose attaches to brooder



Figure 2. Ceiling fire damage

### PUTTING KNOWLEDGE TO WORK

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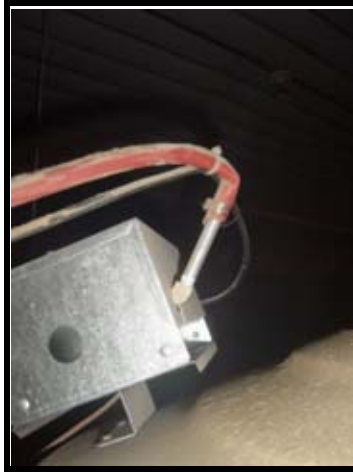


Figure 4. Pinched brooder gas line.

The pinching of the gas line is often the result of improper gas line/hose positioning and/or brooder movement. The lack of hose support at the control valve can allow the hose to pinch partially closed as the brooder is raised/lowered or moves. Though it is very important that gas hoses are properly positioned, sometimes it can be difficult to totally eliminate the hose flexing at the brooder.

A broiler producer in West Georgia came up with a simple and inexpensive method of providing flexible hose support at the brooder to minimize the possibility of gas hose pinching. The producer took a 30" X 3/32" welding rod (308 stainless steel) and wrapped it around a 1/2" pipe. The welding rod was used because though capable of being bent it retains some spring after being bent. After being bent the roughly 1/2" spring was pulled to a length of five to six inches. The ends of the wire snipped and bent so that they would not dig into the gas line.



Gas flow was cut off to the brooders, gas hoses removed, and spring inserted over the end of the hose. The spring allowed the hose to flex but not to the point where it would pinch closed. Furthermore, the spring helps to keep the hose elevated off the brooder canopy reducing the likelihood of the hose touching the hot canopy.

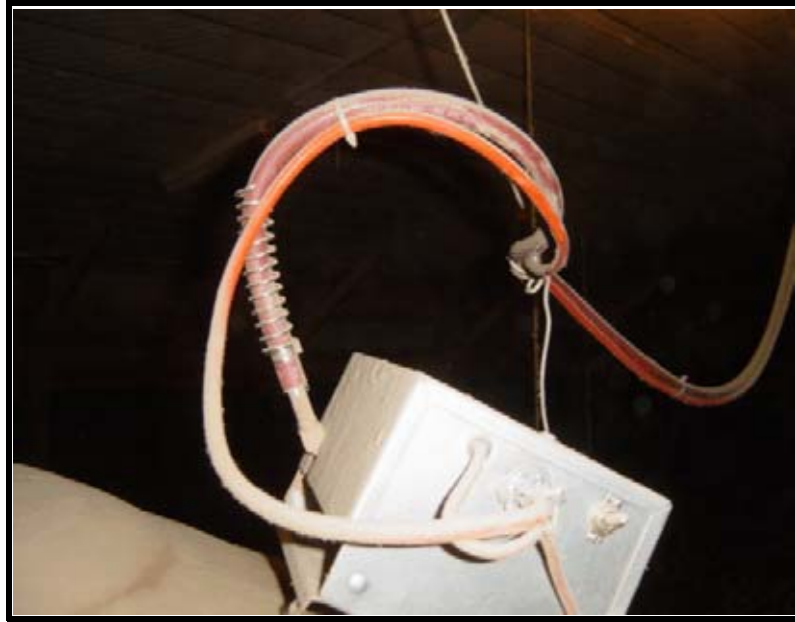
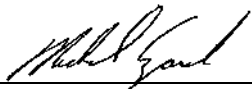


Figure 5. Gas hose with support spring

It is important to note that if you are having hose pinching problems that you first review your brooder installation manual. The spring is intended to give the hose a little extra support but should not be viewed as a cure-all. It is very possible that the gas control box/valve was not installed properly, the gas hose was not lead to the brooder and/or supported according to manufacturer's recommendations, or the wrong type of hose was used. These issues should be addressed first before installing gas line support springs.



Michael Czarick  
Extension Engineer  
(706) 542-9041 542-1886 (FAX)  
[mczarick@engr.uga.edu](mailto:mczarick@engr.uga.edu)  
[www.poultryventilation.com](http://www.poultryventilation.com)

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