

Bird Migration in Naturally Ventilated Broiler Houses

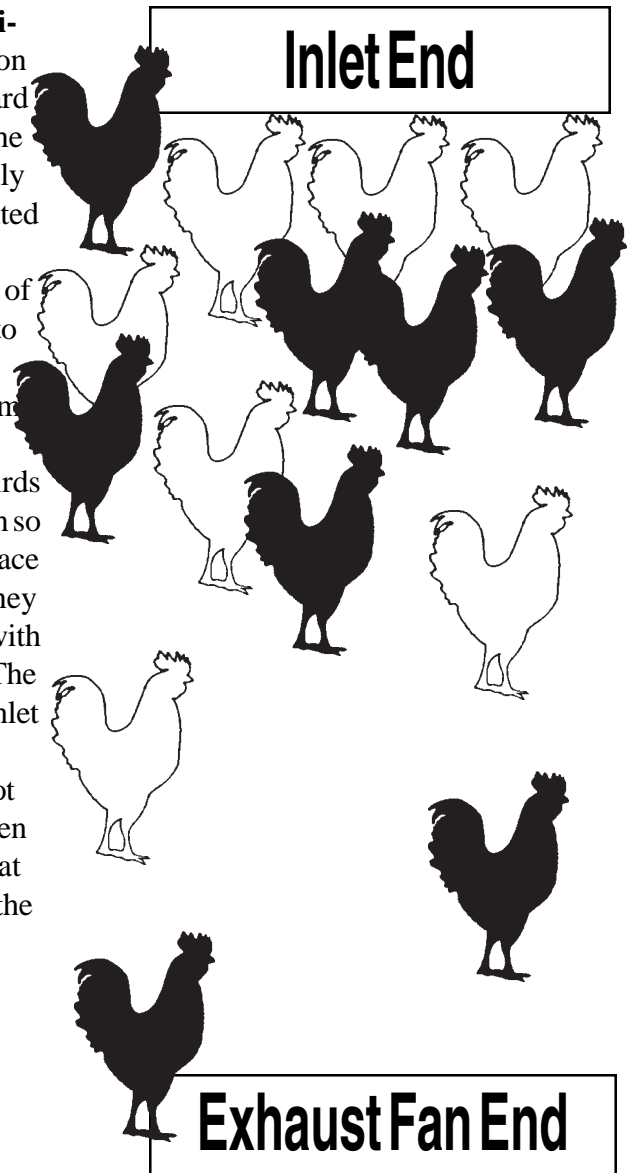
There may be an easy and inexpensive way for poultry producers with naturally ventilated houses to reduce heat stress related mortality in birds as well as increase bird performance in summer. It doesn't involve buying more fans, changing fogging systems or using more electricity. The only thing involved is installing three or four short migration fences, like those placed in tunnel-ventilated houses.

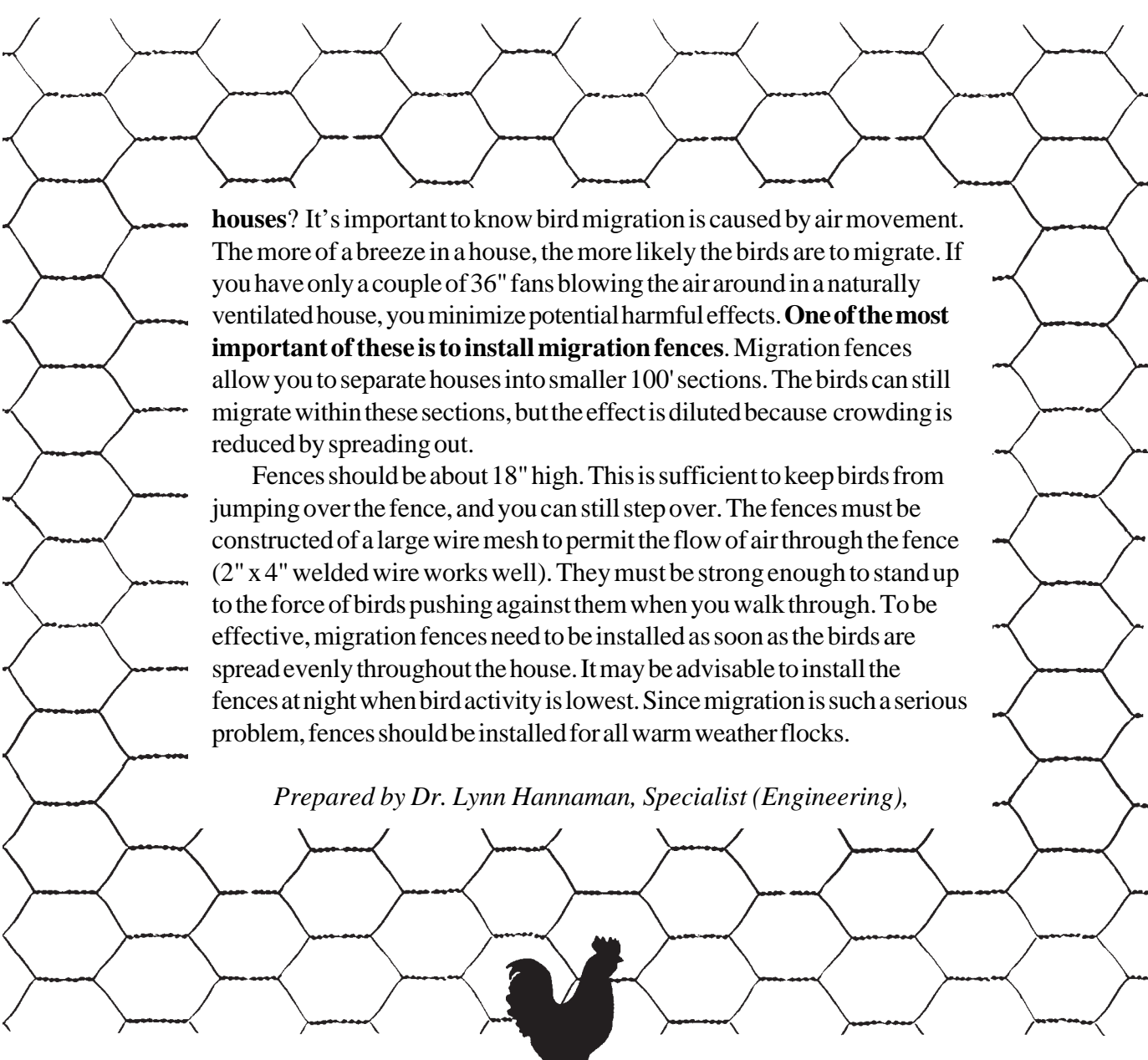
One of the biggest challenges growers with tunnel-ventilated houses have had to face is bird migration. Bird migration is the tendency of the birds in a house to walk into the wind toward the inlet end of the house. It is a very gradual process, but over the course of weeks the density in the inlet end of the house will slowly increase while that near the exhaust fans decreases. If not prevented early in the grow-out, there often is not enough space in the inlet end of the house for the birds to move around, but at the fan end of the house, each bird will have several square feet of floor space to itself.

The large differences in bird density lead to significant problems for producers. First, with so many birds in the inlet end of the house, there simply is not enough feed and water space for the birds to perform like they should. Furthermore, the birds are packed in so tightly they can't even make it to the limited feeder or waterer space that is available. When birds try to get to feeders and waterers, they walk over the top of one another, resulting in scratches. Finally, with the birds standing so close to one another, they easily overheat. The net result is bird performance that is severely restricted near the inlet end of the house.

In tunnel-ventilated houses where birds have migrated, it's not uncommon to find a half-pound or more weight difference between those birds in the inlet end compared to those in the fan end. What makes it worse is there are significantly more of the light birds in the inlet end than heavy birds in the fan end. Field studies in tunnel-ventilated houses have shown if the birds migrate, average bird weight throughout the whole house can easily be decreased by about 1/3 pound.

What does this have to do with naturally ventilated





houses? It's important to know bird migration is caused by air movement. The more of a breeze in a house, the more likely the birds are to migrate. If you have only a couple of 36" fans blowing the air around in a naturally ventilated house, you minimize potential harmful effects. **One of the most important of these is to install migration fences.** Migration fences allow you to separate houses into smaller 100' sections. The birds can still migrate within these sections, but the effect is diluted because crowding is reduced by spreading out.

Fences should be about 18" high. This is sufficient to keep birds from jumping over the fence, and you can still step over. The fences must be constructed of a large wire mesh to permit the flow of air through the fence (2" x 4" welded wire works well). They must be strong enough to stand up to the force of birds pushing against them when you walk through. To be effective, migration fences need to be installed as soon as the birds are spread evenly throughout the house. It may be advisable to install the fences at night when bird activity is lowest. Since migration is such a serious problem, fences should be installed for all warm weather flocks.

Prepared by Dr. Lynn Hannaman, Specialist (Engineering),



*from material written by Michael Czanck and Michael P. Lacy of
The University of Georgia Cooperative Extension Service.*

**Louisiana State University Agricultural Center, H. Rouse Caffey, Chancellor
Louisiana Cooperative Extension Service, Bruce Flint, Vice Chancellor and Director**

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