

# **Watering system for cage-free commercial layer operation needs special thought**

*By the Technical Team, Ziggity Systems, Inc.,  
101 Industrial Parkway East, Middlebury, Indiana 46540, USA*

MIDDLEBURY, Indiana, USA — Pressure continues to mount on commercial egg producers to convert their poultry houses from battery cages to an alternative form of housing. This change requires producers to rethink their strategies for keeping layers, including how they supply the birds with water.

Producers will have to spend more time walking the house or barn, checking for floor eggs and to determine which nests the birds are using. They also will have to make sure the birds find the drinkers and feeding areas.

One element of any commercial layer operation that producers tend to give too little thought to is the watering system — a critical component of any poultry house. Layers need a sufficient supply of clean, hygienic water or production will suffer. A single day without water will cause a hen to stop laying.

Producers who use a cage system often find their nipple-type drinkers leak because vibration caused by bird movement results in the shut-off ball rattling off its seat. The water release results in wet conditions in the house and ammonia releases. Many producers resolved this situation by using nipple drinkers with catch cups. However, this type of a drinker is a poor solution in alternative housing.

Producers have three main choices for alternative housing: aviary, floor and enriched cage. With aviary and floor systems, the hens roam freely in the house. Their dust bathing and scratching can result in more dirt in the air. This inevitably settles in the catch cups, tainting the water. In addition, catch cups also allow for

bird-to-bird cross contamination. While catch cups may seem suitable for an enriched cage system, the problems inherent with such drinkers remain.

Ziggity Systems resolved this problem by designing its Max8 drinker specifically and exclusively for commercial layer operations. The Max8 is a more robust drinker, capable of withstanding the pecking of mature hens 18 weeks and older. It has a heavier shut-off ball and more of its weight is below the seat, preventing inadvertent seepage. Ziggity has not received a single warranty claim on a Max8 drinker in the five years it has been in use, a testimony to its design being a good fit for layer operations.

Aviary systems are gaining popularity among commercial egg producers, especially in Europe. The aviary system allows for a higher stocking density than floor systems, and it avoids the public relations issues that follow enriched cage systems. Fienhage GmbH, a German producer of aviary systems, has integrated Ziggity's Max8 drinkers into its system as a means of ensuring hygienic water and an ammonia-reduced environment for the birds.

Producers will have to give special thought to the location of the watering system. They should place the watering lines and feed system close to the nests so that the birds can eat and drink in proximity to the nest. This will help reduce the number of floor eggs.

The open systems, like aviary and floor systems, allow birds to roam freely, and this can result in a more extensive distribution of bird droppings. The result is higher ammonia levels. Using adequate ventilation and a watering system that will not leak will help address the ammonia. Otherwise, the house will promote a very unhealthy environment, exposing hens to more pathogens and likelihood of disease.

Another consideration for the watering system is how easy it is to flush. Biofilms can quickly establish themselves in watering lines. The biofilm — a colony of bacteria — can coat drinker parts, inhibiting how they work, and can contaminate the water the birds drink. Producers should make sure their enclosed watering systems have bypass valves and flush-through water regulators to make a regular flushing schedule easy.

Alternative housing for layers appears to be the wave of the future. Producers who will succeed with these different types of housing are the ones that pay attention to the details, including the watering system.

*Ziggity Systems, Inc. is the only manufacturer 100 percent focused on poultry watering for improved performance. For more information, write Ziggity Systems, Inc. at 101 Industrial Parkway, P.O. Box 1169, Middlebury, Indiana 46540-1169 USA, call +1 574.825.5849, fax +1 574.825.7674, or visit its Web site at [www.ziggity.com](http://www.ziggity.com).*