

# **Treat chicks to a more hygienic environment for better results**

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Getting a poultry flock off to a healthy start goes a long way to ensuring a successful growout. Consider: the first week represents about 20 percent of a chicken's life. If the bird must spend that first week fending off disease and unhealthy conditions, it will not have sufficient time to make up the lost body weight or to improve the feed conversion rate.

Producers must do a variety of things to prepare the poultry house for a new flock. At Ziggity Systems, we have developed a set of management procedures that apply directly to the watering system. This is important because farmers frequently overlook the watering system to the detriment of their flocks.

One of the most important jobs for you to do is to clean the watering system. This is best accomplished with a high-pressure flush — 1.5 to 3.0 Bars (20 to 40 psi). Charge all lines with a hydrogen peroxide and water mixture, following the manufacturer's directions. Properly formulated, a hydrogen peroxide mixture is very effective at killing pathogens in the water and destroying biofilm. Let the mixture stand. This allows the hydrogen peroxide to scrub the interior of the pipes. Then flush the lines with pure water, at least one minute for every 100 feet (30 meters) of line. After the flush, clean the riser tubes and caps.

Too many poultry operations overlook the importance of combating biofilm. Bacteria create biofilm by exuding a sticky, nutrient rich substance when they attach to solid surfaces in water. The biofilm attracts other bacteria and any other pathogens in the water, growing into an active colony of pathogens. The result: enclosed watering systems designed to keep birds healthier turn into the

instruments delivering pathogen rich water. Once a biofilm is established, it is extremely difficult to get rid of it. Regular flushing throughout the growout can help keep it in control. Biofilm also can coat the interior parts of the drinkers, causing them to leak. This results in wet litter and ammonia releases.

After cleaning the system, activate each drinker manually to ensure water is present throughout the system. Replace any leaking drinkers to avoid wet litter, and check all other features of the watering system to ensure they are in good working order. Any breakdown in the watering system during brooding can have a serious impact on flock performance.

Another job is to level the litter under the drinker lines to eliminate any high or low spots. If the litter is uneven, the birds either cannot reach the drinkers or the drinkers are too low and will leak when the birds activate them.

Adjust the regulator's column pressure to Day One settings. Ziggity recommends a column pressure of 1 inch (2.5 centimeters) to 2 inches (5 centimeters). This pressure is low enough that the chicks can easily activate the drinker.

Now, you are ready for the chicks. When they arrive, place them under the drinker lines. Make sure you have sufficient lighting, enough to attract the chicks to the metal pins. It is important you encourage the chicks to consume water as soon as possible after their arrival.

Adjust the watering lines so that the end of the trigger is just slightly higher than eye level for the chicks. By the second or third day, producers should begin to raise each line slightly with a goal of having the chicks peck at about a 45-degree angle.

It is imperative that you keep the chicks warm during the first week. Chicks have little ability to regulate their temperature, and a too cold environment will hurt

their development. This is why it is necessary to maintain dry litter. Wet litter will chill the birds and cause them to lose body heat through their feet and legs. You should remove any wet litter that develops under a drinker and replace it with dry.

Finally, make sure you have your water tested on a regular basis for bacteria and chemicals. This is important because water conditions can change over time.

Also, test well water regularly for nitrates. Nitrate-nitrogen can get into a well from rain runoff that contains animal waste or fertilizer. Nitrate itself is non-toxic, but in a chick's stomach it can change to nitrite, which can cause an oxygen deficiency in the bird. This condition could inhibit growth or lead to death.

Getting your flock off to a healthy start is vital to the performance of the flock. That first week is a critical time period where the birds must have as hygienic an environment as possible.

*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).*