

# Upgrading for a successful poultry operation

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During the 1990s, we witnessed a dramatic surge in construction of new poultry houses. Now, much of the equipment in those houses, from ventilation systems to watering systems, uses outdated technology that is not as productive as today's offerings.

In order to remain competitive, producers need to address that aging equipment. Begin by closely examining all facets of the poultry house to determine whether the equipment and the house need only a simple retrofit or complete replacement.

This means taking an objective look at the stability of the structure itself, as well as the technology it employs. Examine closely any damage to the house and determine if the house is sound enough to last until you recoup your investment. Is the house tunnel-ventilated? Almost all new houses being constructed have tunnel ventilation, and the benefits of this technology are well documented.

Examine all of the house's systems and compare them to what is available today. In the last decade equipment manufacturers have made a number of dramatic improvements in their products. Retrofitting with some of these improved products can substantially improve performance.

For example, most farmers have found controllers better maintain the poultry house temperature and environment than thermostats. Retrofitting a house with a personal computer directed controller system can substantially improve production.

Watering systems likewise have greatly improved. Ziggity, for instance, developed its Max3 line of drinkers for broiler applications and most recently introduced the Max8 drinker which is designed specifically to maximize layer production by achieving and maintaining dry manure. Ziggity researchers spent the last three years designing, refining and field testing these drinkers. The Max8 drinker is not a broiler drinker made into a layer drinker. The Max8 was built specifically to be a layer drinker (commercial layers 18 weeks and older) and nothing else. And, you can easily retrofit virtually any watering system with these drinkers without replacing the entire system.

When considering retrofitting a house, look for products that will allow you to do the job as simply and economically as possible. Well-designed products will allow you to replace components of a system, updating existing systems with the latest technology.

With watering systems, for instance, it is possible to retrofit the drinkers and regulators rather than replace the entire watering system. By putting new drinkers on existing lines, you can save a substantial amount of money and time.

Many producers have invested to make their poultry houses airtight and upgraded their ventilation systems. This is an example of wise investment to improve performance. Yet, we know producers who made this expensive investment while ignoring their watering system. Those outdated, leaky drinkers are robbing growers of untold profits.

Over time the chlorine and/or acid in the water can damage the metal parts of the drinker. The constant pecking can cause wear on internal parts, and regulators can wear.

There are some clear signs producers can look for that indicate it might be time to retrofit the watering system:

- High early mortality — losing too many birds in the first week to 10 days
- Lower body weights
- Higher feed conversion rates
- Wet litter that you cannot control

There are a number of reasons why farmers should control wet litter and ammonia releases:

- Wet litter leads to ammonia releases, which in general create an unhealthy environment for the birds. Animal welfare continues to be a serious concern, and farmers who fail to curb ammonia in their operations could face legal difficulties in the future.
- The U.S. EPA began in June a 2½-year nationwide study of air emissions from animal feeding operations. This study ultimately will result in environmental regulations regarding poultry operations, and some of those regulations undoubtedly will involve limiting ammonia releases.
- The increased emphasis on limiting or eliminating antibiotics in poultry production requires producers maintain good litter quality. Wet litter is a breeding ground for all sorts of pathogens that can infect the birds. Maintaining adequate ventilation and drinkers that don't leak are the best methods for avoiding wet litter.
- A number of integrators have determined there is a strong market in Asia for chicken feet. They are considered a delicacy there. If a producer does not maintain good litter conditions, the chickens' feet can be harmed, rendering them useless for overseas sales. This, in turn, can hurt profits.

Poultry producers who intend to remain profitable and have high performance operations are the ones who are constantly monitoring the changes and advances occurring in the industry. An investment in new technology and equipment can reap a good return.

