Delmarva Poultry Industry, Inc., MidAtlantic Farm Credit, and the Maryland Farm Bureau, in cooperation with Maryland State Senator Rich Colburn, sponsored a July meeting in Salisbury for officials of the Maryland Eastern Shore counties, the counties’ soil conservation districts, members of the Maryland General Assembly, and representatives of other agricultural groups to explain a relatively new Maryland Department of the Environment program that should ease the process of getting chicken houses built in Maryland.

In recent years, because of new federally required procedures related to the handling of rainwater on new or expanded chicken farms, chicken house construction in Maryland has been at an extremely slow pace. Under a plan developed three years ago by the Maryland Department of the Environment and administered by the county governments, burdensome, time consuming, and costly steps were in place to make sure that rainwater on new and expanded chicken farms was properly handled to prevent pollution. Stormwater Management Permits are required before chicken house construction can take place. Upon seeing that the new rules were stifling construction, Maryland Governor Martin O’Malley directed the Department of the Environment to streamline the process. At the July meeting, the department explained the new “standard plan” that should make for an easier, more timely, and less costly permitting process while maintaining the environmental benefits of enhanced stormwater management.

Because the authority for issuing stormwater management permits lies with the county governments, the agricultural groups urged each county to accept the new state plan as written and not add to the state’s requirements. DPI Executive Director Bill Satterfield told the more than 60 people at the meeting that for the new state plan to work, “we need the cooperation of each county permitting authority to accept it with few, if any, additional county-specific requirements.” That message was echoed by Senator Colburn who called upon the counties to make no changes. Dr. Bob Summers, secretary of the Maryland Department of the Environment, said his department stands behind the new state program. Secretary Summers and Maryland Department of Agriculture Secretary Buddy Hance personally have been involved in the discussions to create the new “standard plan.”

Kurt Fuchs, Government Affairs Officer for MidAtlantic Farm Credit, and Matt Teffeau, Assistant Director of Government Relations for the Maryland Farm Bureau, commented that the meeting was a successful effort to inform the counties and soil conservation districts about the new state “standard plan” that should lead to the construction of more Maryland chicken houses to help keep the chicken industry strong.

Wicomico County Executive Rick Pollitt hosted the meeting and pledged that his county would work to streamline the process in Wicomico County.
Recognizing the strong stewardship ethic of Maryland farmers is a high priority for the Maryland Association of Soil Conservation Districts (MASCD). After all, the soil conservation districts have been working with diligent farmers for several decades and we know that farmers are doing their part to protect the environment. What we need to do is showcase their efforts to everyone else. That was the impetus in developing the Farm Stewardship Certification and Assessment Program (FSCAP). To date, 66 farms have been recognized for achieving the Certified Farm Stewardship status, including nine poultry farmers.

Just recently, Sung Park, Sun Sang Kim and Howard Jeon joined the ranks of the certified farmers. Sung and his wife Young came to the United States in 1989. They bought Bethel Farm near Salisbury in 2005 after closing a dry cleaning business Sung had been operating since 1992 in Silver Spring, Maryland and Washington D.C. Sung is a Korean-American Poultry Growers Associate. Sun Sang Kim arrived in the United States in 1995 from South Korea. In 2004, he started Sun’s Farm, a 27-acre poultry operation in Delmar and a year later, added New Hope Farm, a 34-acre operation in Willards, both in Wicomico County. In 2009, Howard Jeon and his wife, Clara Lee, bought Sun Farm, Inc., a 31-acre poultry operation in Eden in Somerset County. He is past treasurer of the Korean Poultry Growers Association. All three are DPI members.

MASCD combined the Farm Stewardship Program with another of its projects, the Translation Outreach Project, to send translated FSCAP information to 100 Korean and Vietnamese poultry growers on the Lower Eastern Shore, encouraging them to participate. The Translation Outreach Project translates key information about CAFO, MAFO, CNMPs and related environmental information affecting the poultry industry and mails quarterly newsletters to the Korean and Vietnamese communities.

The other certified conservation stewards with poultry operations include: Jenny Rhodes, DPI President; Kimber Ward, DPI Director; Barney Barnes; Patrick Moore; Gerard Dumsha; and, Gary Marvel.

The Farm Stewardship Program was started in 2010 to publicly recognize all types of Maryland agricultural operations that meet a conservation standard. The standard calls for compliance with state requirements for nutrient management plans and that sufficient conservation best management practices have been installed to confirm that soil conservation and water quality resource concerns have been addressed on both owned and leased land. For those with a CAFO or MAFO permit, if the required comprehensive nutrient management plan (CNMP) has been fully implemented, it is likely to meet the FSCAP standard for certification.

Have you fully implemented your CNMP? For more information contact your local soil conservation district, visit the FSCAP website at http://mascd.net/FSCAP/default.html or call Gerald Talbert, FSCAP Project Leader, 410-247-1973 or email at gft@gtalbert.com.

To most of us Labor Day is viewed as the official end of summer. Kids return to school and summer vacations are over for another year. As the days become shorter and the nights become cooler, most of us will embrace this time of year by shutting off our air conditioners and opening our windows to enjoy the fall night air. However, ventilating poultry houses this time of year is not always so simple.
Fall and spring are transitional seasons when temperatures can fluctuate 30-40 degrees from day to night. This large fluctuation in daily temperatures can make it difficult for growers to ventilate their poultry houses. In order to maintain a constant temperature inside the house as outside temperatures change, growers must make management decisions sometimes on an hourly basis in order to provide an environment for birds that promote optimum performance. Ventilation that is setup to handle hot weather during the day often must be changed at night as outside temperatures drop and back to hot weather ventilation in the morning. The challenge for growers is not only determining when to transition from hot weather to cold weather mode ventilation (or vice versa), but also to make that transition smooth so that birds are not subjected to any drastic change in temperature. Introducing birds gradually to temperature changes is the ultimate goal of ventilation. This is most critical when birds are young, however it is important to manage ventilation throughout the flock to meet birds’ changing needs as they grow.

When utilizing tunnel ventilation, it is important to remember the effect of air speed traveling over birds. High velocity air created by tunnel ventilation produces a wind chill effect, so that the temperature felt by birds is cooler than the actual temperature of the house. When daily temperatures are variable, tunnel ventilation is needed (depending on bird age) to cool birds during the day when outside temperatures climb into the 80s. However, as outside temperatures drop into the 60s and below at night, continuing to run tunnel ventilation can have a negative impact on bird health and performance. It is important to monitor bird comfort during these transitional times so that ventilation can be adjusted as outside temperatures change.

I know a lot of growers have experienced times in which conditions require the removal of heat from the house, but using tunnel ventilation would produce an environment that may cold stress birds. This normally occurs during transitional seasons or when birds are in a growth stage in which they are out of the brooding phase but have not fully developed all of their feathers. A solution to this is to adjust ventilation settings so that air is entering the house through vent boxes along the sidewall instead of through the tunnel inlet. Tunnel fans can be used in this setup instead of sidewall fans to remove more heat from the house, and provide a better environment for birds. This will allow air entering the house to mix and warm prior to reaching bird level without having cooler outside air created by tunnel ventilation moving directly over the birds.

As always, with any power ventilation setup, static pressure should be monitored. When tunnel fans are staged on by thermostats to bring air into the house through vent boxes, it is important not to create a static pressure that is too high for vent inlets to satisfy. This may indicate that adjustments to your ventilation are necessary (perhaps thermostats settings on fans are to low or house temperatures are too high and it is time to switch to tunnel ventilation).

Regulating house temperatures during transitional seasons can be difficult. However, monitoring bird comfort along with the house temperature will help to determine when to adjust ventilation in response to changing outside temperatures. Making proper adjustments that are timely and smooth can help to lessen the impact of fluctuating temperatures on bird health and performance.

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**Early Nutrient Intake and Bird Performance**

Jennifer Timmons, Assistant Professor
University of Maryland Eastern Shore

As most of us know, the day chicks are placed in the house is one of the most crucial days of the flock. The brooding environment in which the chicks are placed will usually dictate how the flock performs later on in life. We have all been told that air quality, heat, and free access to feed and water are three main components of the brooding phase that contribute to a “good start” for chicks. In fact, ignoring the first two components may impact chick behavior and health, and ultimately impact feed and water intake.
A newly hatched chick receives all of its nutrients from the egg yolk. The absorption of essential nutrients and hen antibodies from the yolk sac are critical for survival during the chick’s early life. The yolk sac is usually used up within 4 days after hatching. However, chicks that are provided access to feed promptly demonstrate faster utilization of yolk nutrients which may provide a useful boost to chick growth.

Today’s broilers now reach slaughter weight at a younger age and the first week represents a larger percentage of the bird’s life. Therefore, how chicks are raised during their first week of life will have a significant impact on flock performance at movement. A chick’s body weight increases two- to threefold during the first week and substantial changes in gut and muscle weight occur from 0-7 days of age. Limiting feed and water access in the first few days of a chick’s life can decrease final body weight and weaken the chick’s ability to respond to a disease challenge.

Proper management of feed equipment is essential to ensure feed access is not limited. I know that this sounds like a simple statement, but I have known growers to tolerate a bad switch in a control pan or cross auger, flock after flock, without repair and as a result feed lines run empty. Feeder height must also be adjusted throughout the flock to provide easy access to feed at all times. Also, remember to keep litter level under feed (and drinker) lines. Excessive hills and valleys can increase feeder (and drinker) height variability which can also influence the bird’s ability to reach feed (or water).

In addition to feed intake, constant access to water is also important to chick health and performance. Water is the most essential nutrient of the bird’s diet, but its significance is often overlooked. Sometimes with nipple drinkers, constant water availability to birds is taken for granted and water availability may not be checked as often as feedlines are checked for feed. Especially at chick placement, it is important that water pressure and drinker height are managed to provide chicks easy access to water. Occasionally during layout, nipples can stick making it difficult for chicks to trigger the nipple for water. Triggering nipple drinkers at placement will stimulate chicks to approach the drinker line and take a drink of water.

Reports show that delayed feeding of newly hatched chicks slows the development of body systems that begin growing in the chick only after the addition of nutrients. Gut and immune system development play an essential role in the early stages of chick growth and survival. At hatch these systems are growing at rapid rates and any reduction in growth or damage incurred to these systems early in a chick’s life may impact bird performance later on in the flock.

Several studies have reported lower weight gains in birds that were delayed feeding at placement. One study evaluated the effect of delayed feeding at placement on the body weight gain of 39 day old broilers. One group of chicks were delayed feeding for 34 hours while a second group of chicks was provided free access to feed immediately upon arrival to their facilities. Upon completion of the study, the average final body weight of birds fed immediately at chick placement was about 10% higher (0.5 lbs) compared to the body weight of birds that were delayed fed. Applying the bird weight differences observed in this study to commercial broiler production numbers translates to an increase of 12,500 lbs/25,000 birds when feed is provided promptly to chicks upon placement. Results of this study may seem extreme and bird weight differences observed in other studies may be less; however, this example clearly illustrates how early feed intake at placement can influence the weight of the flock at movement.

When chicks hatch, they are programmed genetically to reach a certain market body weight. There are several factors (environment, nutrition, disease, etc.) that influence the bird’s genetic potential for growth. Although some of these factors are not influenced by the grower, managing house conditions to promote nutrient intake is a vital tool growers can utilize to promote and optimize bird growth. Genetic potential lost during the first week cannot be regained. Proper feeder and drinker management along with continued equipment maintenance are crucial to ensuring uninterrupted access to feed and water. Paying attention to these details along with monitoring house temperatures and ammonia levels can optimize nutrient intake which consequently can promote bird health and improve flock performance.