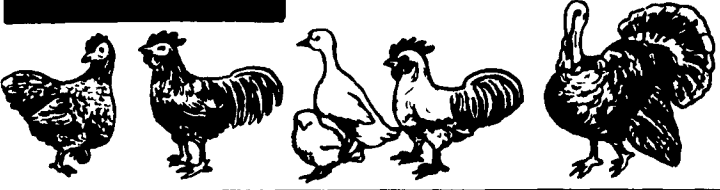


Lowdown on Layers

by
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MG INFECTIONS OF POULTRY

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MG (Mycoplasma gallisepticum, the causative agent) is one of the most costly poultry diseases in the United States. It is estimated that about 1/3 of the nation's table-egg laying flocks and possibly as many as 90 percent of the backyard poultry flocks are infected with mycoplasma. In Pennsylvania, approximately 15-20 percent of the flocks submitting egg samples for avian influenza monitoring have tested positive for MG. However, some of these positives may be due to the use of killed vaccine. Regardless, a large number of Pennsylvania flocks, particularly in multi-age complexes, either have or have had the disease.

Most avian species, including chickens, turkeys, pheasants, waterfowl, quail and pigeons, are affected by this disease. Younger birds are more susceptible than adults. Infection is more severe and lasts longer in cold weather. Often the appearance and the severity of the disease depends upon the amount of stress already imposed upon the flock. Predisposed stressors include overcrowding, poor ventilation, excessive ammonia and dust, nutritional imbalances, vaccination and pathogenic infections that weaken the birds. In other words, the organism may be present, but cause little recognizable disease until the flock is stressed.

The disease can be transmitted from the hen through the ovary to the chick. This is why you should always buy MG-free replacement stock. MG can also get into the poultry house through contaminated equipment, crates, egg flats, clothing, shoes, wild birds, rodents, etc. After being introduced into a flock, the organism is spread through direct bird-to-bird contact and through minute water droplets coughed by an infected bird.

Because MG is a respiratory disease, birds may show symptoms of coughing, sneezing, nasal discharge and watery eyes. In growing birds, feed efficiency and growth rate are decreased. In adult laying birds, the most common findings may be feed consumption and egg production drop, sometimes with a slight increase in mortality. Respiratory disease signs may not be apparent. In many cases, the egg production will be reduced by as much as 5 to 10 percentage points.

Once this occurs, it is almost impossible to return the egg production graph to normal. This reduction in egg production is why prevention is advocated as the best means of controlling MG infections.

Prevention starts with obtaining chicks hatched from eggs of MG-free breeder flocks. The pullets

must be raised in a clean, sanitary, isolated facility. The birds should not be exposed to undue stressors such as excess dust and ammonia, nutritional deficiencies, and uncontrolled exposure to diseases. This type of low stress management should continue when the birds are moved into the layer house. When possible, "all-in-all-out" (having only one age group on the farm) management should be practiced both on pullet grow-out and layer farms because these operations are easier to maintain MG-free. If they do become infected, the house can easily be depopulated, cleaned, sanitized and allowed to stand vacant for a few weeks prior to housing the next flock. This methodology will break the disease cycle and the next flock stands a good chance of being MG-free for the entire production cycle. On the other hand, when MG invades a layer farm with several housing units, each containing a different age bird, it is almost impossible to get rid of the disease.

Controlled exposure by immunization of flocks has been tried. To date there are two different types of MG vaccine -- one is killed and the other is live (F-strain). The F-strain is relatively nonpathogenic (will not produce severe disease in chickens). The killed vaccine has been used in Pennsylvania. Its biggest advantage is that there is no danger in spreading the organism to other flocks because the organism is dead. Although the live F-strain generally would not be transmitted from one farm to another via air, the use of the killed vaccine eliminates any possibility of this. In southeast Pennsylvania this possibility could be important because there are a lot of poultry houses in close proximity to each other.

The disadvantages of killed vaccine are that it costs more (\$.11/dose vs. \$.01/dose for the live), each bird needs to be caught and handled and it may not limit the colonization of the field strain of MG. On the other hand, the live vaccine tends to replace the field strain of MG, reducing the overall levels of disease-producing bacteria that are present. The F-strain can be administered through the drinking water or by spray to birds during the growing period.

However, the live (F-strain) has the potential to infect other birds, particularly turkeys. With the high concentration of birds in southeastern Pennsylvania, this becomes a legitimate concern. As of this writing the Pennsylvania Department of Agriculture has not approved the use of live vaccine in Pennsylvania; however, approval is imminent. The vaccine will be available only on a limited use basis and under those conditions approved by the Pennsylvania Department of Agriculture. When approved, the vaccine will be available from Penn State.

ALLENTOWN — The grand champion steer was exhibited by Amy Jo Keifer, Northampton County, weighing 1,324 pounds at the Bucks, Carbon, Lehigh, Montgomery, Northampton and Schuylkill Eastern Pennsylvania 4-H Beef and Lamb Sale, Saturday, November 21, 1987, at the Allentown Fairgrounds. The buyer, Danny George of George's Foodliner, Bethlehem, paid \$3.40 per pound.

Jessica Keifer, Northampton County, showed the reserve grand champion steer weighing 1,356 pounds and was sold for \$1.30 per pound. The buyer was Danny George.

The lightweight champion steer weighing 1,195 pounds sold for \$.95 per pound and was bought by Ontelaunee Lions, Kempton. The steer was exhibited by Lori Rabenold, Lehigh County. Todd Gulick, Northampton County, showed the reserve lightweight champion steer, weighing 1,070 pounds and was purchased by Danny George for \$.82 per pound. The medium-weight champion steer weighing 1,282 pounds sold for \$.90 per pound and was bought by Wagner Farms, Easton. The steer was exhibited by Debra Krause, Lehigh County. Daniel Hartman, Lehigh County, showed the reserve mediumweight champion steer, weighing 1,282 pounds and was purchased by Berks-Lehigh Farm Credit Service, Fogelsville for \$.87 per pound.

The grand champion individual lamb, weighing 123 pounds was sold at \$4.80 per pound to King's IGA, Schnecksville. It was owned by Lori Tyson, Lehigh County. The grand champion pair of lambs, exhibited by Scott Lazarus, Lehigh County, was purchased by Danny George. The pair of lambs weighed 211 pounds combined and was sold at \$1.70 per pound.

Deanna Miller, Carbon County, showed the reserve grand champion and reserve heavy-weight champion lamb and was sold to Berks-Lehigh Farm Credit Service at \$1.60 per pound. The lamb weighed 127 pounds. The reserve grand champion pair of lambs, shown by Deanna Miller, Carbon County weighing 223 pounds combined was purchased by Richard Hafit and Help U Sell Realty, Allentown for \$1.20.

The lightweight champion lamb was purchased by Heusseman's Farm Equipment, Emmaus for \$1.05 per pound. The lamb weighed 92 pounds and was exhibited by Laura Lazarus, Lehigh County. The Reserve lightweight Champion lamb, weighing 93 pounds and was sold at \$1.05 per pound to Mass Mutual Life Insurance, Allentown. It was owned by Tracy Voortman, Lehigh County. The reserve medium-weight champion lamb, weighing 115 pounds was sold at \$1.00 per

Keep in mind, controlled exposure should not be viewed as a substitute for prevention, but only as a method to achieve MG-free status for a given farm. MG-free flocks will have the best egg production. While MG vaccines will never give you the same egg production as flocks free of the disease, they will give you somewhat better egg production than flocks experiencing a frank outbreak of MG. Prevention is still the best cure.

47th Eastern Pennsylvania 4-H Beef, Lamb Sale



Grand champion pair of lambs sold by Scott Lazarus, Germansville, to Danny George, George's Foodliner, Bethlehem.



Grand champion lamb sold by Lori Tyson, Kempton, to Harold Aulenbach for King's IGA, Hamburg, Oley and Schnecksville.



Grand champion steer sold by Amy Jo Keifer, Bangor, to Danny George, George's Foodliner, Bethlehem.

pound to Agway, Inc. Ormrod. It was owned by Grant A. Lazarus III, Lehigh County.

The sale, as was the show on Friday, was conducted by the Agricultural Extension Service, with the County Agents of the six counties in charge. The auctioneers were Peter Krall and Ralph Zettlemoyer.

Other buyers at the sale were David Schultz, Bailey and Bull, Todd Gulick, Peters Brothers, Baringer Brothers, Zettlemoyer Auction, Peter Krall, Rodney A. Grammes, John Scholl, Albright's Feed Mill, William C. Willits, Charles E. Mertz, Lazarus Farm Market, William Harris, Realty Center, Blue Mountain Auto Sales, Jaendl's Turkey Farm, Bromm's Lullabye Sod Farm, Haring Brothers, Warren Pennock, Jim and Ann Burns, Marsteller Meats, Farm Bureau, Young's Farms, Marsteller Grain.

Average price per pound of the steers with the grand champion included was \$.96 per pound, without the top champions, the average was \$.84 per pound. Last year's averages were \$.96 and \$.78.

Average price per pound for the lambs with the grand champion included was \$1.10 per pound, without the top champions, the average was \$1.00 per pound. Last year's averages were \$.95 and \$.87.

The total sales of the 26 steers in the sale were \$30,551.04. The total sales of the 73 lambs in the sale were \$8,764.16.

LAMB

Grand Champion Lamb
Lori Tyson
Reserve Grand Champion Lamb
Deanna Miller
Champion Pair of Lambs
Scott Lazarus

(Turn to Page D4)

LIVESTOCK
LATEST

ENTER
DATA

