



OPINION

Avian Influenza: Causes, Cures Start Right At The Farm

With the recent quarantine of poultry farms in Lancaster County, it's time to look at ways to prevent any further outbreaks of avian influenza (A.I.).

One of the first ways is to take a good, long, hard look at biosecurity at the farm. It doesn't take much imagination to see what would happen if a simple breach in poultry biosecurity would occur.

Take, for instance, a 120,000-bird layer house — a sight increasingly common for the industry. Or a 110,000-bird broiler house. One employee who fails to wash and disinfect himself before entering the house, carrying the A.I. virus, could infect a few birds in the flock. As a result, the entire flock is infected and has to be depopulated at a cost of more than \$300,000.

That's a lot of money. And that doesn't even include the "ancillary" costs, the extra costs, that Dr. Sherbyn Ostrich spoke about recently. Those addition costs include disinfection and the entire cleanup effort in addition to labor involved in repopulation.

Ostrich is the state veterinarian who is part of a team tracking herds in the quarantine zone recently imposed in Lancaster County, affecting about three million birds, including layers and broilers.

A suspected cause of the recently identified A.I., a nonpathogenic strain, in flocks in the Manheim-Mount Joy area could be the trucks transporting spent hens to live bird markets in New York, New Jersey, and even Pennsylvania. Trucks not disinfected before leaving the live bird markets and making their way to Lancaster County farms could pose a grave danger to flocks — they violate rules of biosecurity.

As a result, Ostrich sees a whole new industry arising, possibly as the result of legislation being set up in the future to mandate "sanitation stations" in the state. They could be run by commercial operations (he knows of two in the region already who have stations equipped to clean and disinfect large trucks).

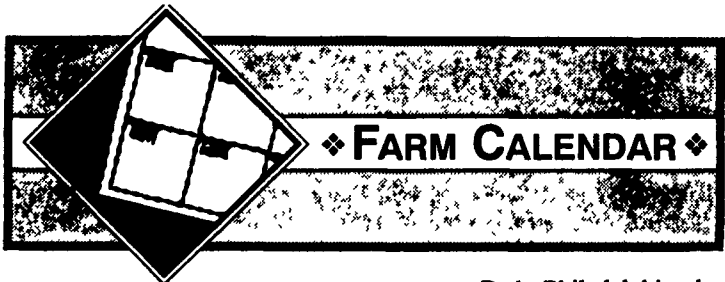
They would do a lot to curb the incidence and spread of A.I. in the state's almost \$600 million-per-year poultry industry.

State veterinarians and disease experts met this week to discuss causes and prevention of A.I. Areas of biosecurity that may not be considered in everyday farm life include sharing of farm equipment and custom planting and harvesting equipment that may go from one poultry farm to another. Poultry producers simply must implement strict biosecurity, even if they are not within the five-mile quarantine radius outlined by the Pennsylvania Department of Agriculture.

Biosecurity is no longer an option anymore — it is absolutely necessary. The industry is far too big and far too important in the state.

Last December a flock in Lebanon County was depopulated and A.I. was curbed in that region. Ostrich believes the industry got lucky — but how much can be attributed to getting the information about biosecurity and putting it into practice in a serious way?

In 1983 the state's poultry industry was caught off guard. They didn't understand the virus and what devastation it could cause. But as John Hoffman, executive director of the Pennsylvania Poultry Federation put it at this week's news conference in Harrisburg, mistakes were made 14 years ago that won't be — can't afford to be — repeated.



Saturday, May 24
 Thorncroft Handicapped Riders Event of Devon Horse Show, Riding and Driving, Equitation, FMI, Thorncroft, Malvern, other events continued May 25.
Sunday, May 25
 Northwest Keystone Junior Beef Classic, Butler Fairgrounds.
Sunday, May 25
 Handicapped Riders Event of the Devon Horse Show, Thorncroft Equestrian Center, Malvern.
Monday, May 26
 Memorial Day
 Lancaster Farming office closed.
 Championship Class and Awards Ceremony, Handicapped Riders Event of Devon Horse Show, Devon Horse Show Grounds, Devon.
Tuesday, May 27
Wednesday, May 28
Thursday, May 29
 Philadelphia County Fair, Fair-

mount Park, Philadelphia, thru June 8.
 Nutrient Management Town Meeting, Dallastown Area High School, 7 p.m.
Friday, May 30
 Antique Engine, Tractor, and Toy Club 12th Annual Show, Kempton Community Center, Kempton, thru June 1.
Saturday, May 31
Sunday, June 1
Monday, June 2
Tuesday, June 3
 Fruit Growers Twilight Meeting, McGinley Orchard, Winfield, 6 p.m.-9 p.m.
Wednesday, June 4
Thursday, June 5
 Southeast Regional Fruit Meeting, Dunn's Fruit Farm, New Ringgold, 6:30 p.m.

Now Is The Time
 By John Schwartz
 Lancaster County Agricultural Agent

To Calibrate Sprayer
 Calibration of field sprayers should start at the nozzle, according to Robert Anderson, Lancaster County extension agronomy agent.

The proper nozzle should be used for the type spray being applied. Many spray materials will suggest the type of nozzle that should be used. Then make sure the output of each nozzle is accurate and uniform.

Although manufacturers rate nozzles for output, their performance may be affected by dirt, wear, pressure losses, and ground speed. Calibration checks should be done on all nozzles.

The procedure Anderson recommends is to measure the amount of spray that would be applied by one nozzle on an area equal to 1/128th of an acre. Using this method, the number of ounces from a nozzle equals the number of gallons applied per acre.

To Calculate 1/128th Acre

Robert Anderson, Lancaster County extension agronomy agent, states by dividing 43,560 square feet per acre by 128, we find there are 340 square feet in 1/128th of an acre.

Next, measure the spacing of the nozzles on the boom in feet. Twenty-inch spacing equals 1.67 feet (20 divided by 12) and 40-inch

Pasture Walk and Conservation Tour, Samuel K. King Farm, Gordonville, 10 a.m.-noon DST.

Trees and Utilities Conference, Penn State Wilkes-Barre Campus.

Nutrient Management Background Workshop, Computer Demonstration, University Park, Penn State University, 10 a.m.-3 p.m.
Friday, June 6

Saturday, June 7
 Special Dairy Issue

Ride and Drive at Reinecke Fuchs Farm, noon.

Bucks-Montgomery Cooperative Wool Pool, Delaware Valley College, Doylestown.

Pa. Equine Council Allegheny Trail Ride, thru June 8.

Centre/Clinton County Day Camp, Clinton County Fairgrounds, 9 a.m.-3 p.m.

Cambria County Farm Safety Day, Fairgrounds, Ebensburg, 10 a.m.-3 p.m.

SASDA Annual Meeting, Historic Inn, Annapolis, Md., thru June 11.

Sunday, June 8
 Thorncroft Spring Horse Trials, Beginner-Open Novice, FMI, Thorncroft, Malvern.
 Specialty Mushroom Workshop, Nittany Lion Inn, Penn State, thru June 9.

spacing equals 3.3 feet.

If you divide 340 by the nozzle spacing distance, you determine the number of feet the sprayer must travel in order for one nozzle to spray 1/128th of an acre. With 20-inch spacing the distance is 204 feet and for 40-inch nozzle spacing the distance is 102 feet.

Now you need to determine how long it takes your sprayer to cover the required distance. Timing should be done under field conditions. Drive the tractor and sprayer filled with water across a field with soil conditions similar to those expected to be found in the field at the time of spraying. Clock the amount of time it takes to cover the 204 feet or 102 feet, depending on the nozzle spacing.

To Determine Sprayer Nozzle Output

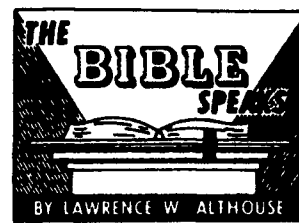
Once you have determined how many seconds it takes you to cover 1/128th of an acre, you are ready to determine how much material is being applied per acre, said Robert

Anderson, Lancaster County extension agronomy agent.

With the tractor stopped and parked in a safe position, run the engine at the throttle setting used in the field if the sprayer is PTO-driven. If the sprayer has its own engine, you can turn the tractor engine off. Set the pressure you plan to spray at and collect the water from a nozzle for the amount of time it took to cover the measured distance. This reading in ounces is equal to the number of gallons applied per acre at that tractor speed and pressure setting.

One additional test you may want to consider is running your sprayer over a driveway or other paved area and check to see if the pattern looks uniform and dries uniformly. If some streaks appear as the surface dries, the spray pattern is not uniform and nozzles should be replaced.

Feather Prof.'s Footnote: "There is no exercise better for the heart than reaching out and lifting people up."



TIME AND ETERNITY
 May 25, 1997

Background Scripture:
 Revelation 21:1 through 22:5

Devotional Reading:
 Revelation 22:1-9

Eternity is beyond my comprehension for I am a prisoner of time. My watch and calendar shape my perceptions, my experience and my expectations. And as I grow older time seems to become my tormentor, perhaps even my enemy.

All human beings experience the tyranny of time. At first, it may lie heavily upon us and we foolishly wish for it to hurry along. Eventually, however, we are amazed to find it flashing past us so quickly and try as we might, we cannot stop it or even slow it down.

Our problem is that we habitually interpret eternity through the prism of time. That is understandable for time is all that we have experienced. Viewed thus, eternity seems a dim prospect of endless time. What we need to do more often is to let eternity interpret time, for, as Aldous Huxley has written, "It is only by taking the fact of eternity into account that we can deliver thought from its slavery to life. And it is only by deliberately paying our attention and our primary allegiance to eternity that we can prevent time from turning our lives into a pointless or diabolic foolery."

IS TIME REAL?

Although some people tend to regard the concept of eternity as "pie in the sky . . . sometime," one of eternity's greatest gifts is to the living of life in time. One of the things eternity teaches us is the distortion of time. Because we measure time with clocks, calendars and astronomical apparatus, we tend to think of it as reality. In truth, it is only one perspective of reality or one reality among others.

The Greeks had two different concepts of time. One of these was Chronos or chronological time. This is the concept by which 9 a.m. is always followed by 9:01 a.m., as Tuesday follows Monday. February comes tripping on the heels of January and 1999 is cer-

tain to be succeeded by the year 2000. Chronos causes us to see time in terms of a past that is gone, a present that is fleeting and a future that is unseen.

The Greeks also thought of time as Kairos, the depth of time that is not governed by a ticking clock or nagging calendar. To put it lightly, the difference between Chronos and Kairos is the difference between an hour a teen-ager spends with his parents and the hour he spends with his girlfriend. Chronos is measured time, while Kairos is time fulfilled. And even though we rarely break out of the restraints of chronos, human beings have the capacity to experience both.

THE DWELLING OF GOD

Whatever eternity is, Revelation assures us that it will be with God. "Behold, the dwelling of God is with men. He will dwell with them and they shall be his people" (21:3). Eternity will be Kairos because we will be with God. Denis de Rougemont has written, "As is well known, the Devil is the Prince of Time, and God is the King of Eternity. Time without end, that is Hell. Perfect presence, that is eternity."

In that eternity, John assures us, "God . . . will wipe away every tear from their eyes, and death shall be no more, neither shall there be mourning nor crying nor pain any more, for the former things have passed away" (21:5,6). It is difficult for us to envision an eternity such as this, but it is enough that God has promised it.

Eternity will be so much more than anything I could imagine. And we will put time behind us as we live in the presence of him who said, "I am the Alpha and the Omega, the beginning and the end."

(The Althouses will walk in the footsteps of Paul and John of Revelation, leading a tour to Turkey next Oct. 17-Nov. 2. For information: "Turkish Delight," 4412 Shenandoah Ave., Dallas, TX 75205(214) 521-2522.)

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