ORNITHOSIS OUTBREAK IN TURKEYS - 1974

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SUMMARY

A routine analysis of specimens submitted to the diagnostic laboratory at Texas A&M University (TAMU) from a turkey flock with respiratory problems suggested ornithosis. Ten days later, May 1, 1974, a second case with a field diagnosis of sinusitis was laboratory positive for ornithosis. Three more such cases showed up the next week.

The Texas State Department of Health (TSDH) had been notified(May 8) and was alerting medical practitioners in the turkey producing and processing area.

On May 8, Texas Animal Health Commission (TAHC) started placing quarantines on the infected flocks. The acting veterinarian in charge, Veterinary Services, informed the Hyattsville office of the diagnosis of ornithosis.

Illness, that was later confirmed as ornithosis, commenced in Waco, Texas, turkey processing plant employees the first week in May but did not come to the TSDH attention until May 17, 1974. A similar outbreak commenced the third week in May in employees of a plant in Lampasas, Texas, and again in the last half of June in a plant in Gibbon, Nebraska, and in a plant in Brownwood, Texas.

Concern for the safety of poultry inspectors and processing plant employees continued to mount in Washington. On July 12, 1974, APHIS officials started action that created a cooperative suveillance task force to monitor the turkey flocks in Texas prior to slaughter. By August 1, 152 flocks with over 1.8 million turkeys had received a flock inspection and were serologically sampled for ornithosis. Only three additional flocks were classified infected (serologically positive). All positive flocks were treated with chloratetracycline 200 grams/ton feed for 21 days prior to slaughter.

ORNITHOSIS IN TURKEYS

Ornithosis has not been reported in turkeys by the Texas laboratories since the Southern Conference of Avian Diseases report started in 1966.

In this outbreak, the disease was not readily recognized and flock histories indicate that treatment for fowl cholera had been used. The hypothesis has been proposed that ornithosis had appeared as a mixed infection this year.

The condition at slaughter appeared more like airsacculitis and was not readily recognized by the veterinary inspectors.

Epidemiological investigations did not define a definite beginning point or a route of spread. Some flocks thought to be the source of human exposure at slaughter did not have a history compatible with ornithosis. Those flocks known to have had ornithosis were treated with chloratetracycline prior to slaughter.

ORNITHOSIS IN TURKEY PROCESSING PLANT EMPLOYEES

Ornithosis was diagnosed with laboratory support in employees of five establishments as follows:

May 1 through June 10, 1974 - ~~Plantation Foods~~, Waco, Texas

During this period, two waves of illness occurred; no source flock was identified in the first; the second was attributed to a flock (McIntyre Farm) from Bremond, Texas, slaughtered May 17 and May 21. Seventy-two out of a total of 275 employees reported symptoms compatible with ornithosis.

May 21 through May 28 - Lampasas, Texas

Forty out of a total of 180 employees developed symptoms of ornithosis. This ourbreak was attributed to the slaughter of a local flock on May 3.

June 18 through June 21 - Gibbon, Nebraska

Out of a total of 80 employees, 20 developed symptoms compatible with ornithosis. There was one death beofre the diagnosis of ornithosis was made, and it was not confirmed in this case. This outbreak was attributed to three flocks from the Lampasas, Texas, area slaughtered in late May and early June.

June 25 through June 26 - Brownwood, Texas

Out of a total of 100 employees, three developed symptoms similar to ornithosis; this case attributed to slaughter of turkeys from Blanket, Texas.

FIELD ACTIVITIES DURING THE OUTBREAK

The case history and tissues for the first case was submitted to the diagnostic laboratory at TAMU by a veterinary practitioner in Belton, Texas. It is suspected that this condition could have existed in three or more turkey flocks since February 1974.

The diagnostic laboratory informed the TAHC of a possible ornithosis outbreak on May 8. The TAHC issued quarantine on the first flock on May 8, 1974. Also on this date, Veterinary Services personnel in Texas informed the Regional Director, Veterinary Services in Hyattsville, and the TSDH alerted the local medical practitioners.

On May 17, Veterinary Services in Hyattsville received word that ornithosis was found in slaughter plant employees. This information was related to the Center for Disease Control, Atlanta, Georgia.

On June 24, the Meat and Poultry Inspection epidemiologist reported to the Regional Director, Veterinary Services that ornithosis was diagnosed in processing plant employees in Gibbon, Nebraska, and believed traceable to Texas turkeys slaughrered in Gibbon the first of June. By June 28, ornithosis was known to have occurred in three plants (Waco, Lampasas, and Gibbon, Nebraska).

During the next week, the Veterinary Services Regional Poultry Epidemiologist was in Texas investigating known and suspected premises. He was unable to find the original source flock or determine a mode of spread between premises.

On July 9, 1974, the Acting Deputy Administrator, Meat and Poultry Inspection, sent out MPI Bulletin 752 to all poultry inspectors announcing the ornithosis outbreak, describing the pathology, and giving instructions on the procedures to be followed when ornithosis was diagnosed at slaughter.

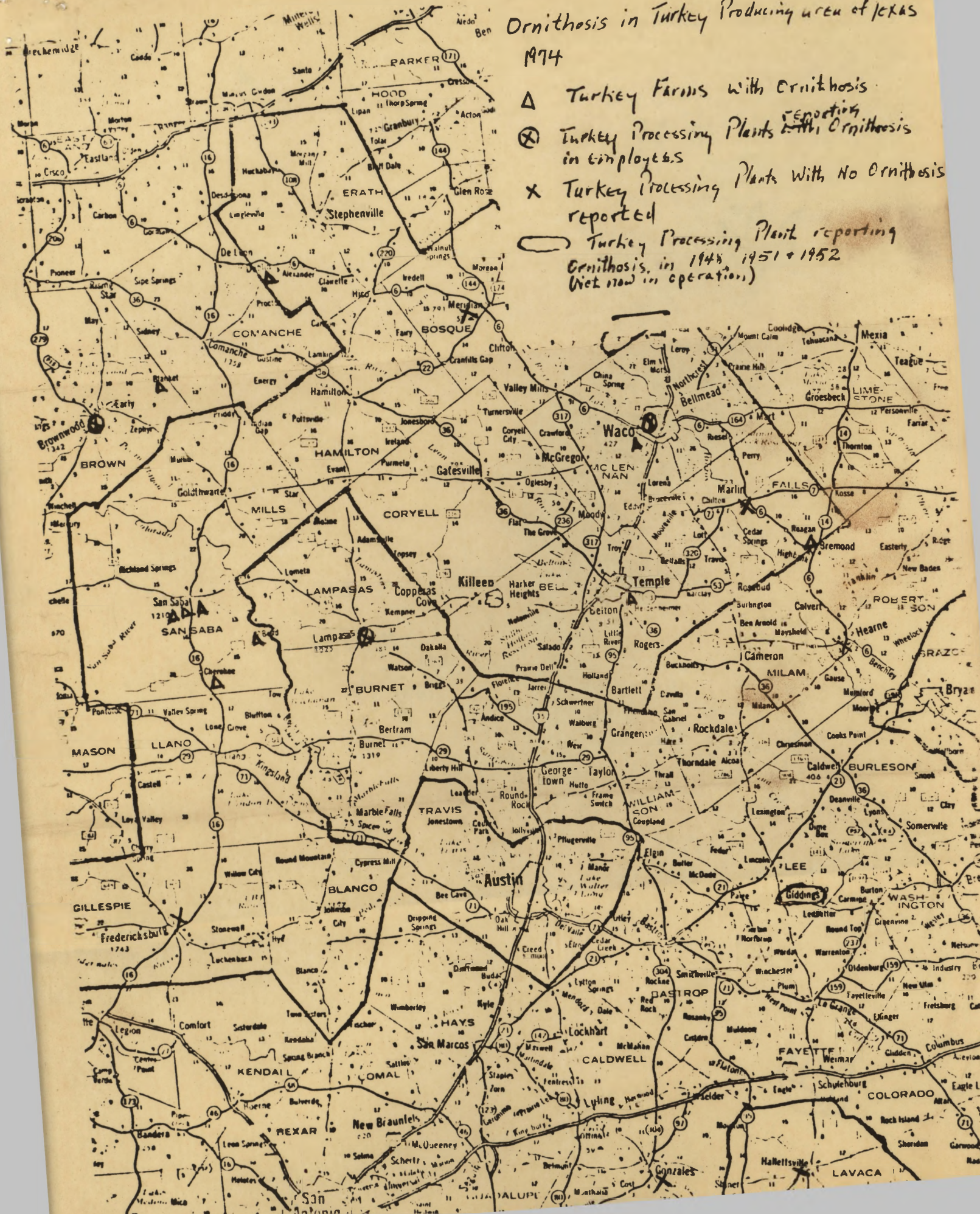
On July 11, The Administrator of APHIS dispatched technical personnel to Texas to aid in setting up and advising a field surveillance task force.

Members of TAMU, Veterinary Microbiology faculty, TAHC, TSDH, MPI-VS, joined to form a headquarters staff, at College Station, Texas. Within the next 4 days headquarters was established in the ARS laboratory building at College Station, a two-day orientation for veterinarians on ornithosis, and a one-day meeting with the Texas Turkey Growers was held to explain the prupose of the task force and to obtain their cooperative support. Actual field inspection of flocks commenced within the week. By the time the task force was fully organized, it consisted of 12 Federal veterinarians, 6 State veterinarians, 1 program analysist, 4 clerks, 3 couriers, and 2 field assistants.

The procedure was to inspect all turkey flocks in Texas one to two weeks prior to their scheduled slaughter date. At the time of veterinary inspection of the flock, 10 random samples of blood were drawn from each lot/pen of birds on a premises which was couriered into TAMU laboratory for an indirect CF c.f. test for ornithosis. Samples with a titer of 1:32 or higher were considered positive and the flock was detained for a 21 day treatment with chloratetracycline in feed (200 gm./ton) and a second inspection before release for slaughter. Flocks considered serologically negative were given a permit to go to slaughter immediately.

CONCLUSIONS

This is the first time in about ten years that ornithosis has been diagnosed in the TAMU laboratory. The disease appeared in a rather mild form in the turkeys, almost as if it were a secondary infection. Transmission to processing plant workers did occur in at least four plants. The source of the infectious agent was not determined nor was the mode of transmission.


Ornithosis in Turkey Producing area of Texas
1974
Δ Turkey Farms with Ornithosis
⊗ Turkey Processing Plants reporting Ornithosis in employees
× Turkey Processing Plants With No Ornithosis reported
Turkey Processing Plant reporting Ornithosis in 1948, 1951 & 1952 (Not now in operation)
PARKER
HOOD
ERATH
Stephenville
COMANCHE
BOSQUE
HAMILTON
BROWN
MILLS
CORYELL
Gatesville
Killeen
Temple
Waco
McGregor
McLENNAN
FALLS
Marlin
LIMESTONE
Mexia
ROBERTSON
LAMPASAS
SAN SABA
BURNET
Lampasas
MASON
LLANO
Burnet
Bertram
TRAVIS
Austin
Round Rock
Georgetown
WILLIAMSON
Rockdale
Cameron
MILAM
BURLESON
LEE
Giddings
WASHINGTON
BASTROP
Lockhart
CALDWELL
FAYETTE
COLORADO
LAVACA
BLANCO
GILLESPIE
Fredericksburg
HAYS
San Marcos
KENDALL
COMAL
BEXAR
New Braunfels
Gonzales
Elgin
Bastrop
Brownwood
Goldthwaite
Hamilton
Valley Mills
Bellmead
Groesbeck
Hearne
Bryan
Somerville
Schulenburg
Columbus
Llano
Kingsland
Marble Falls
Johnson City
Dripping Springs
Bee Cave
Oak Hill
Manor
Pflugerville
Taylor
Granger
Thorndale
Caldwell
Giddings
Lexington
Smithville
Lyons
Deanville
Cooks Point
Chriesman
Milano
Bartlett
Belton
Harker Heights
Copperas Cove
Salado
Florence
Jarrell
Schwertner
Walburg
Andice
Liberty Hill
Leander
Cedar Park
Jollyville
Round Mountain
Cypress Mill
Willow City
Stonewall
Luckenbach
Comfort
Sisterdale
Boerne
Center Point
Kerrville
Ingram
Hunt
Medina
Utopia
Sabinal
Uvalde
Sabinal River
Frio River
Nueces River
Leon Springs
Helotes
Scherts
Selma
Converse
Universal City
Schertz
Seguin
Cibolo
Buda
Kyle
Dripping Springs
Driftwood
Wimberley
Woodcreek
Lytton Springs
Mendoza
Dale
Red Rock
Rosanky
Cedar Creek
Creedmoor
Maxwell
Martindale
Staples
Zorn
Fentress
Lytling
Harwood
Luling
Lockhart
McMahan
Mustang Creek
Plum
Paige
Carmine
Warrenton
Round Top
Winchester
Smithville
Rockne
Red Rock
Muldoon
Cistern
Flatonia
Weimar
Schulenburg
Eagle Lake
Columbus
Sheridan
Garwood
Rock Island
Hallettsville
Shiner
Yoakum
Moulton
Cuero
Yorktown
Meyersville
Thomaston
Victoria
Goliad
Refugio
Corpus Christi
Aransas Pass
Port Aransas
Rockport
Fulton
Aransas Bay
Copano Bay
Mission Bay
Matagorda Bay
Lavaca Bay
Port Lavaca
Point Comfort
Palacios
Matagorda
Sargent
Bay City
Wharton
El Campo
Louise
Ganado
Edna
Francitas
Blessing
Markham
Midfield
Collegeport
Danevang
Egypt
Hungerford
Boling
Iago
Wadsworth
Van Vleck
Sweeny
Brazoria
Angleton
Alvin
Manvel
Pearland
Friendswood
Webster
Clear Lake
Seabrook
Kemah
La Porte
Deer Park
Pasadena
Baytown
Galveston
Texas City
League City
Dickinson
Santa Fe
Hitchcock
Alta Loma
Sandy Point
Jones Creek
Surfside
Freeport
Quintana
Oyster Creek
Lake Jackson
Clute
Richwood
Angleton
Brazoria
Damon
Liverpool
Columbia Lake
Bonus
Sargent
Matagorda
Palacios
Port Lavaca
Point Comfort
Lavaca Bay
Matagorda Bay
Aransas Bay
Copano Bay
Mission Bay
Rockport
Fulton
Aransas Pass
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Cuero
Yoakum
Moulton
Shiner
Hallettsville
Schulenburg
Eagle Lake
Columbus
Sheridan
Garwood
Rock Island
Weimar
Flatonia
Muldoon
Cistern
Rockne
Red Rock
Rosanky
Smithville
Winchester
Warrenton
Round Top
Carmine
Paige
Giddings
Lexington
Lyons
Deanville
Somerville
Cooks Point
Chriesman
Milano
Bartlett
Belton
Harker Heights
Copperas Cove
Salado
Florence
Jarrell
Schwertner
Walburg
Andice
Liberty Hill
Leander
Cedar Park
Jollyville
Round Mountain
Cypress Mill
Willow City
Stonewall
Luckenbach
Comfort
Sisterdale
Boerne
Center Point
Kerrville
Ingram
Hunt
Medina
Utopia
Sabinal
Uvalde
Sabinal River
Frio River
Nueces River
Leon Springs
Helotes
Scherts
Selma
Converse
Universal City
Schertz
Seguin
Cibolo
Buda
Kyle
Dripping Springs
Driftwood
Wimberley
Woodcreek
Lytton Springs
Mendoza
Dale
Red Rock
Rosanky
Cedar Creek
Creedmoor
Maxwell
Martindale
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Harwood
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McMahan
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