

# Diseases of North Dakota Poultry

By J. O. Foss<sup>1</sup>

**A** study of the poultry disease record for the fiscal year July 1, 1944 through June 30, 1945 has revealed a few interesting facts.

The number of lots of poultry submitted showed an increase of 160 over the previous year but there was a decrease of 400 in the total number of specimens received. There was an average of 3.5 birds submitted per lot during 1943-44 and 2.2 birds per lot during the past year.

The label "No Diagnosis" appears high on the past year's list. This number of failures to make a diagnosis seems somewhat out of line at first glance. This group includes birds received too badly decomposed to examine, which were numerous, birds which were doubtful cases on which we had insufficient information and birds in which nothing was found to allow a diagnosis.

Among chickens the order of frequency of occurrence of pullorum disease, of the leucosis complex, and of coccidiosis was the same as last year. The next two diseases, however, were reversed from the previous year, that is fowl cholera was noted less often while navel infection was noted more often. Pullorum disease appeared in 128 out of 451 lots in 1943-44 and 147 out of 506 lots in 1944-45. The percentage remains about the same.

Among turkeys we found a change in the order of frequency of diagnosis of particular diseases. During 1943-44 blackhead was noted most frequently followed by coccidiosis with pullorum disease, navel infection and paratyphoid infection on an even level. In 1944-45 we found navel infection leading with paratyphoid, blackhead, and coccidiosis in that order.

Pullorum disease cannot be considered a problem of much magnitude in North Dakota turkeys. Most of the cases diagnosed originated in poults shipped in from out-of-state hatcheries. Navel infection is also known as "mushy chick disease." It is so called because infected chicks or poults often become very edematous, fluid in the tissues and in the body cavities. Other cases are characterized by inflammation of the navel area and an unabsorbed and odorous yolk sac. It results from infection of the unhealed navel and this is most apt to occur in the incubator or first day in the brooder. The incidence of the infection is high in weak chicks or poults as the navel closes slowly and resistance is low. Just why there were so many cases in the spring of 1945 is hard to explain.

<sup>1</sup>Assistant veterinarian, resigned Dec. 31, 1945

In submitting birds to the laboratory for study one should select live affected specimens and ship them directly to the Department of Veterinary Science, NDAC, Fargo, North Dakota, by pre-paid express. Specimens and dead birds may also be sent by parcel post but special care should be taken that there will be no leakage. In cases where dead birds only are available, they should be frozen before shipment or a can of ice packed with the specimen. This will slow or stall decomposition which in many cases prevents a diagnosis. Information concerning the case is often vital to a diagnosis so attach a letter giving full description to the box. Your veterinarian, county agent, or feed dealer has also been supplied with request blanks for poultry disease diagnosis. One of these may be filled out and mailed to the laboratory.

A summary of the poultry disease diagnoses for 1944-45 follows.

**Chickens**

Lots examined: 506	Number: 1147
Diagnosis:	
Pullorum .....	147
Fowl leucosis: .....	85
Visceral lymphomatosis	
(tumors) .....	47
Neural (range paralysis) .....	25
Erythro blastosis (anemia) .....	7
Ocular lymphomatosis	
(grey eye) .....	5
Osteopetrosis (big bones) .....	1
No diagnosis (miscellaneous	
causes) .....	73
Coccidiosis .....	52
Navel infection .....	44
Fowl cholera .....	28
Tuberculosis .....	22
Enteritis (miscellaneous	
causes) .....	13
Infectious Bronchitis .....	13
Fowl pox .....	12
Coryza and Roup .....	12
Typhoid .....	9
Laryngotracheitis .....	8

Peritonitis .....	8
Bronchitis .....	7
Gout .....	4
Cannibalism .....	4
Paratyphoid .....	3
Botulism .....	2
Blackhead .....	1
Pullet disease .....	1
Parasites:	
roundworms .....	8
cecal worms .....	3
tape worms .....	2
lice .....	4
Deficiencies:	
rickets .....	5
nutritional roup .....	5
curly toe paralysis .....	3
malnutrition .....	2
leg weakness .....	2
Perosis .....	1
Impactions:	
crop .....	2
gizzard .....	2
intestine .....	1
Injuries .....	1
Faulty caponizing .....	1
Slow feathering .....	1
Wind puff .....	1

**Turkeys**

Lots examined: 170	Number: 471
Diagnosis:	
Navel infection .....	49
No diagnosis (miscellaneous	
causes) .....	30
Paratyphoid .....	20
Blackhead .....	16
Coccidiosis .....	15
Typhoid .....	12
Pullorum .....	12
Enteritis (miscellaneous	
causes) .....	8
Fowl cholera .....	5
Staplyiococcosis .....	4
Trichomoniasis, lower .....	4
Trichomoniasis, upper .....	3
Dietary dermatitis .....	3
Rickets .....	2
Sinusitis .....	2
Tapeworms .....	2
Tumors of liver .....	2
Leg weakness .....	1
Leucocytozoon infection .....	1
Tuberculosis .....	1
Ulcerative enteritis .....	1
Buckwheat poisoning .....	1
Malnutrition .....	1
Pendulous crop .....	1
Impaction:	
gizzard .....	1
intestine .....	1
Trampled .....	1

**Miscellaneous**

Pigeons:		Pheasants:	
Lots examined: 5	Number: 6	Lots examined: 1	Number: 2
No diagnosis .....	1	Negative .....	1
Paratyphoid .....	4	Grouse:	
Enteritis .....	1	Lots examined: 2	Number: 2
Ducks:		Hemorrhagic enteritis .....	1
Lots examined: 4	Number: 5	Negative .....	1
Leucocytozoon infection .....	1	Feed samples .....	6
Sarcosporidiosis .....	2	Water samples .....	4
Freak—two intestinal tracts....	1		

**Crop Statistics for North Dakota**

(Data from "Crops and Markets", U.S.D.A., Vol. 22, No. 4, October, 1945)

Crop	Yield Per Acre			Production in 1000 bushels		
	Average 1934-43 bus.	1944 bus.	Indicated Oct. 1, 1945 bus.	Average 1934- 1943	1944	Preliminary 1945
Corn .....	17.4	29.0	22.0	19,280	36,250	26,664 <sup>d</sup>
Oats .....	24.1	34.5	34.0	40,050	82,041	83,266
Buckwheat .....	9.3	16.0	17.0	46	64	136 <sup>d</sup>
All wheat .....	11.5	16.3	16.3	84,362	161,630	161,931
Spring wheat other than durum .....	11.1	16.5	16.0	60,426	132,660	132,496 <sup>d</sup>
Barley .....	18.3	22.5	24.0	33,018	59,062	57,336
Rye .....	11.1	10.5	14.0	8,346	2,016	2,030
Sorghum for grain' .....		12.0	12.0		12	12 <sup>d</sup>
Flaxseed .....	5.4	8.3	8.0	4,415	7,661	12,328
Potatoes .....	96.0	125.0	130.0	13,249	20,875	23,010 <sup>d</sup>
Sugar Beets—Not reported for N. Dak. in Crops and Markets for North Dakota						
Field peas, dry .....		1100 lbs	900 lbs		110 <sup>a</sup>	90 <sup>a</sup>
Dry beans, edible .....		500 lbs	500 lbs		10 <sup>a</sup>	5 <sup>a</sup>
Alfalfa hay .....	1.21 <sup>b</sup>	1.60 <sup>b</sup>	1.50 <sup>b</sup>	163 <sup>c</sup>	293 <sup>c</sup>	272 <sup>c</sup>
Tame hay .....	1.10 <sup>b</sup>	1.40 <sup>b</sup>	1.35 <sup>b</sup>	1,139 <sup>c</sup>	1,122 <sup>c</sup>	1,042 <sup>c</sup>
Wild hay .....	0.78 <sup>b</sup>	1.00 <sup>b</sup>	0.95 <sup>b</sup>	1,334 <sup>c</sup>	2,060 <sup>c</sup>	1,761 <sup>c</sup>

<sup>a</sup>In thousands of 100 lb. bags, uncleaned

<sup>b</sup>In tons per acre

<sup>c</sup>In thousands of tons

<sup>d</sup>As of October 1st, 1945