

Bacillary white diarrhoea : results of testing a breeding flock / by T. Dalling, J.H. Maosn, and W.S, Gordon.

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BACILLARY WHITE DIARRHOEA : RESULTS OF TESTING A BREEDING FLOCK

By T. Dalling, M.R.C.V.S., J. H. Mason, M.R.C.V.S.,
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Beckenham, Kent.

In November, 1926, poultry farmer A. contracted to buy from B. several thousand eggs for hatching. Prior to the delivery of this large consignment, 150 eggs were incubated and several chicks died from B.W.D. (bacillus isolated and identified by laboratory tests). Incubation was carried out in the usual way, a Mammoth incubator being used, and the following is the result of the hatchings and the mortality from B.W.D. up to the 28th day, after which no records were kept.

Lot of chicks.	No. chicks hatched.	% hatched.	% died.
A.	1,263	70	42
B.	340	69	63
C.	900	69	59
D.	500	65	57
E.	173	65	71
F.	100	65	29
G.	1,466	67	18
H.	605	58	28
I.	2,518	75	36

B.W.D. was confirmed by laboratory tests on several chicks in each lot. The percentage death rate includes chicks killed by farmer A. who did not wait till chicks actually died but killed all ailing birds whenever noticed. B.W.D. did not exist on farm A. previous to the 1926 hatching. On two occasions all unhatched eggs were sent to the laboratory for examination. Lot 1 consisted of 130 eggs, of which 59 were non-fertile and 71 contained dead chicks in varying stages of development. Cultures were made from the contents of all eggs, and from 25 B. pullorum was isolated. Lot 2 consisted of 143 eggs, of which 68 were non-fertile and 75 contained dead chicks. Cultures of B. pullorum were isolated from the contents of 30 eggs.

On farm B. intradermic (I.D.) and agglutination (Agg.) tests were carried out on 645 hens which had produced the eggs hatched by farmer

UNITED STATES DEPARTMENT OF JUSTICE

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Washington, D.C.

July 10, 1954

TO: SAC, NEW YORK (100-158841) FROM: SAC, NEW YORK (100-158841)

RE: JAMES EARL RAY, AKA; ALLEGEDLY INVOLVED IN THE
KIDNAPING OF EDWARD G. BREWER, JR.;
MURDER OF MARTIN LUTHER KING, JR.

On July 7, 1954, the New York Office received a letter from the Chicago Office, dated July 6, 1954, and captioned as above. The letter advised that the Chicago Office had received information from a confidential source that James Earl Ray had been seen in Chicago on July 4, 1954, at the residence of a person known to the Chicago Office as "John Doe". The Chicago Office is currently conducting an investigation into the activities of Ray and is seeking to establish his whereabouts during the period of the BREWER kidnaping and the KING murder.

DATE	TIME	LOCATION	PERSONS
7/4/54	10:00 AM	Chicago, Ill.	Ray, Doe
7/5/54	11:00 AM	Chicago, Ill.	Ray, Doe
7/6/54	12:00 PM	Chicago, Ill.	Ray, Doe
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12/31/54	10:00 PM	Chicago, Ill.	Ray, Doe

The above information was obtained from a confidential source who has provided reliable information in the past. It is being furnished to you for your information and for your use in the investigation of the above-captioned case. It is requested that you keep this information confidential and not disclose it to any other person. If you have any questions or need further information, please contact the New York Office.

Very truly yours,
Special Agent in Charge

A. The results were as follows:

I.D. +	I.D. —	I.D. +	I.D. —
Agg. +	Agg. —	Agg. —	Agg. +
<hr/>	<hr/>	<hr/>	<hr/>
82	402	152	9

The hens were now divided into three groups, (a) those reacting to both tests + those reacting to agglutination test alone (91 birds), (b) those negative to both tests (402 birds), (c) those reacting to intradermic but not to agglutination tests (152 birds).

For the remainder of the breeding season, eggs laid by negative reacting hens (group b) were used: no B.W.D. resulted. Eighty eggs laid by hens of group (c) were incubated; no B.W.D. was found. Twelve hens from group (a), i.e., reactors to both tests, were sent to the laboratory. They were mated with a non-agglutinator cockerel and their eggs were collected and hatched out under hens. The following results were got:-

Eggs.	Chicks hatched.	Chicks died B.W.D.
11	3	1
11	7	2
13	10	2
13	9	1
13	6	2
13	5	2
<hr/>	<hr/>	<hr/>
74	40	10

One hen died. The ovary showed typical B.W.D. lesions and B. pullorum was cultivated from them.

Discussion.

This work confirms the view held by American workers and recorded in the report of the Proceedings of the United States Livestock Sanitary Association (1), that the agglutination test is valuable as a means of removing B. pullorum carrier fowls from a breeding flock.

We regard complete agglutination at a serum titre of 1 in 40 as a positive reaction. Whether 1 in 10, as used in some American laboratories, or 1 in 100, is the best dilution to use in large scale eradication work does not appear yet to be fully settled.

It is probable that the intradermic method of testing may also be useful. Results of testing the above flock would indicate that the intradermic method of testing condemns a greater percentage of hens than

the agglutination method. Up to the present we have not been able to carry out post-mortem examinations on hens reacting only to the intradermic test: this will be done when opportunities are found.

From the present state of our knowledge, we would advise poultry farmers who have B.W.D. in their flocks to carry out agglutination tests and remove those reacting positively. It is advisable to test at least twice every year till two consecutive tests show no positive reactors before concluding that a flock is "clean."

Summary and Conclusions.

(1) A flock of hens, of which about 11% reacted to agglutination and intradermic tests, produced eggs from which about 40% of the chicks hatched died of B.W.D.

(2) From about 20% of the unhatched eggs cultures of B. pullorum were grown.

(3) Hens which were non-reactors to the agglutination and intradermic tests produced healthy chicks.

(4) Hens reacting to both tests produced chicks of which 20% died of B.W.D.

Reference. - Journ. Amer. Vet. Med. Assocn. Vol. LXX. March, 1927.

The registration number. It is the present we have not been able to
carry out post-mortem examinations as soon as possible only to the
extent that this will be done when opportunities are found.

From the present state of our knowledge, we would advise that
Lemnae was born 1892. It is likely that he came out of the
and some time passing possibly. It is probable to have been
taken every year till the consecutive years that he passed through
before concluding that a flock is "clean".

Summary and Conclusions

(1) A flock of hens, of which about 112 seemed to be registered
and registered birds, produced eggs from which about 40% of the
hatched out of 18,000.

(2) From about 10% of the eggs which were out of 18,000
were given.

(3) Hens which were not registered in the registration
details were produced healthy chicks.

(4) Hens registered in the registration details of 18,000
of 18,000.

Reference - Journal, Vol. 1, No. 1, 1937.