

DIAGNOSING AN EGG PRODUCTION DROP

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FLOCK HISTORY

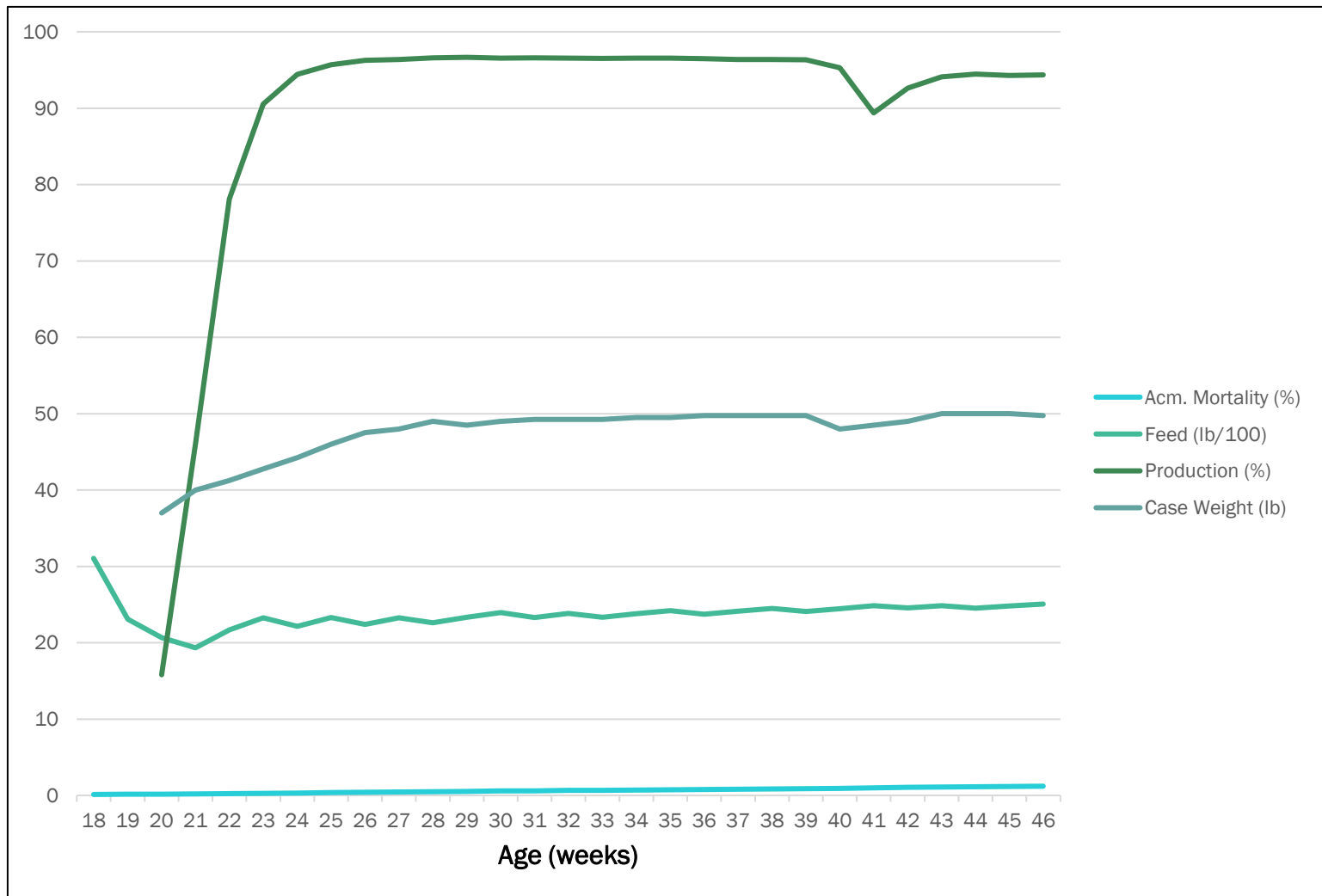
- 42-week-old cage-free flock
- ~6% egg production drop
- Drop in case weight
- Normal feed and water consumption
- Normal flock mortality



FLOCK RECORDS

Age	Weekly Mortality (%)	ACM Mortality (%)	Feed (lb./100)	Production (%)	Case Weight (lb.)
39	0.03	0.84	24.47	96.39	49.75
40	0.03	0.88	24.1	96.35	49.75
41	0.05	0.93	24.46	95.31	48
42	0.05	0.98	24.84	89.4	48.5
43	0.07	1.05	24.56	92.63	49
44	0.06	1.11	24.85	94.11	50
45	0.04	1.14	24.53	94.47	50
46	0.03	1.17	24.82	94.29	50
47	0.04	1.22	25.08	94.36	49.75





WHAT'S ON YOUR RULE OUT LIST?

- Disease(s)?
- Feed/Nutrition?
- Mechanical problem?



DIAGNOSTICS

- Collected 20 choanal cleft swabs from random birds
- 5 freshly euthanized birds submitted to diagnostic lab
- 20 serum samples collected at 40 weeks, then additional 20 samples at 42 weeks (same birds)



DIAGNOSTICS: MOLECULAR (PCR) RESULTS

- Collected tracheal swabs for IBV, AI, NDV, MG, MS PCR testing
- Avian influenza PCR: Negative
- Newcastle Disease PCR: Negative
- MG PCR: Negative
- MS PCR: Negative
- **Infectious Bronchitis (IBV) PCR: Positive (CT value = 21.98)**



IBV PCR TEST RESULTS

<i>Target (IBV Genotype)</i>	<i>Result</i>	<i>Ct Value</i>
Delaware 072/92	Negative	Not detected
Arkansas	Negative	Not detected
DMV/1639/11	Positive	21.98
Massachusetts and/or Connecticut	Negative	Not detected
GA08 Type	Negative	Not detected
PA/1220/98	Negative	Not detected
IBV General	Positive	21.0

Note: Our lab is generally able to isolate IBV from samples with Ct values < 32.

DIAGNOSTICS: NECROPSY (POSTING) FINDINGS

- 5 freshly euthanized birds to state lab
 - No gross lesions observed
 - No evidence of *Avibacterium paragallinarum* (Infectious Coryza)
 - No signs of bacterial infection



DIAGNOSTICS: PARASITOLOGY RESULTS

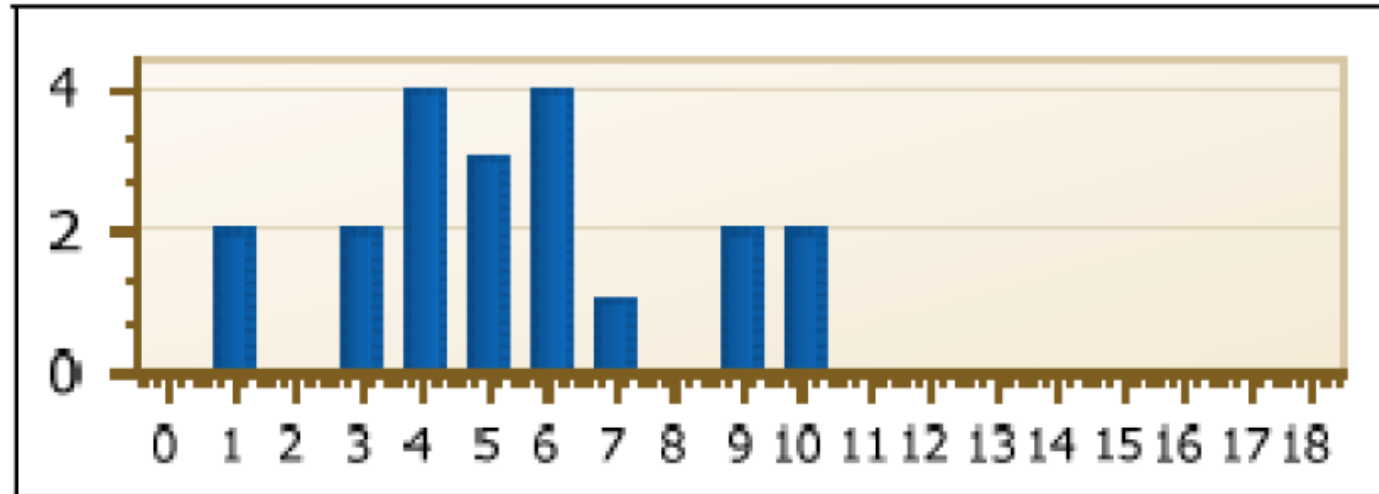
- No coccidiosis oocysts or other parasites present on fecal flotation



SEROLOGY RESULTS

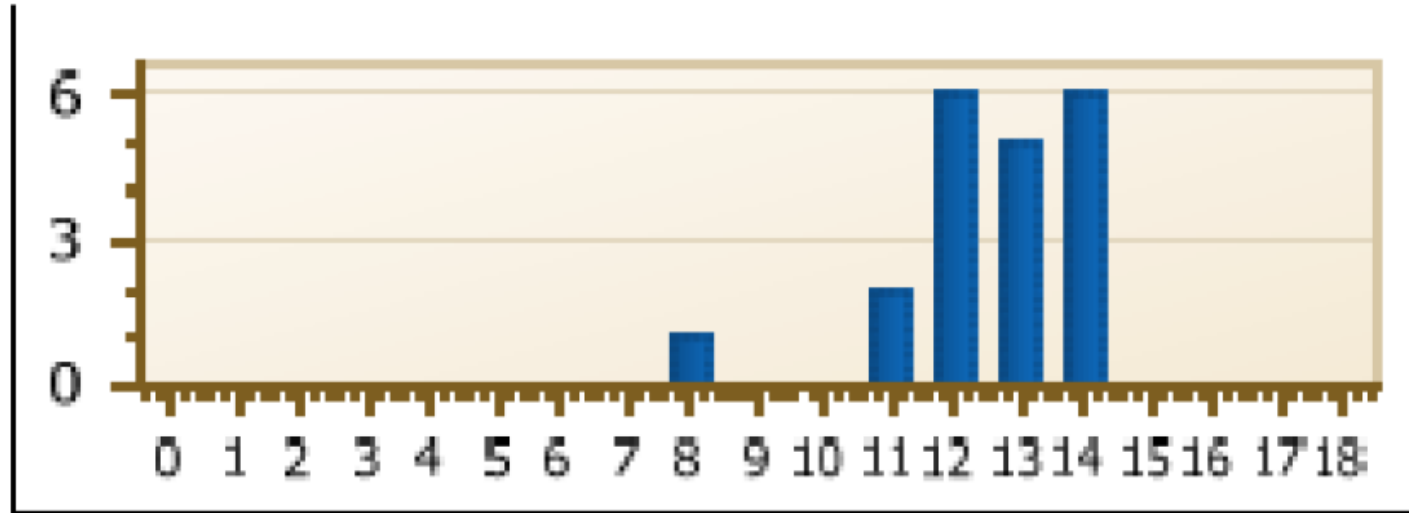
AGE	INFECTIOUS BRONCHITIS (IBV)	NEWCASTLE DISEASE (NDV)
20	8040	13987
30	7287	19700
40	6663	11281
42	25042	14109

SEROLOGY RESULTS: 40 WEEKS



Assay:	IBV	Lot number:	FS7317
Sampling date:	4/7/2019	Test date:	4/16/2019
Neg/Sus/Pos:	0/0/20	No. samples:	20
Mean	Titer: 6663	%CV: 63	VI: 105
Target	Titer:	%CV:	VI:
Interpret	Titer:	CV:	VI:

SEROLOGY RESULTS: 42 WEEKS



Assay:	IBV	Lot number:	FS7317
Sampling date:	4/19/2019	Test date:	4/30/2019
Neg/Sus/Pos:	0/0/20	No. samples:	20
Mean	Titer: 25042	%CV: 21	VI: 1192
Target	Titer:	%CV:	VI:
Interpret	Titer:	CV:	VI:

TREATMENT & PREVENTION

- Since IBV is a viral disease, no treatment
- Focus on prevention:
 - 1) Vaccination
 - 2) Biosecurity



VACCINATION

- Live IBV vaccines
- Inactivated (“killed”) vaccines
- Vaccine considerations



BIOSECURITY RULES

- Education is key
- “Traffic Guidelines”
- No live poultry at home
- PPE and/or farm-specific shoes/clothing
- C&D of any trucks/trailers, vehicles, equipment, etc.
- Dedicated equipment



BIOSECURITY RULES

- Pest/rodent/wild bird prevention
- Lock houses to prevent unauthorized access
- Monitor crews/vendors/visitors that enter bird areas
- Monitor compliance & reassess biosecurity risks and practices



QUESTIONS?



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