



Chick Embryo Development



Infertile



• No Development

Fertile

Microscopic View

Infertile



• Blastoderm



• Blastodisc



1

DAY 1

EMBRYONIC DEVELOPMENT

- Appearance of Tissue Development

TROUBLESHOOTING

- Low fertility
- Pre-incubation
- Improper fumigation
- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Rough egg handling
- Insufficient egg holding time
- Rough setting of eggs
- Contaminated eggs
- Nutritional-drugs-toxins





2

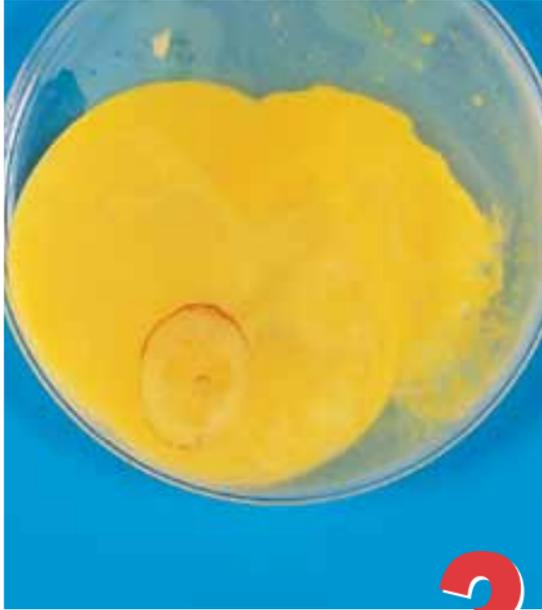
DAY 2 **EMBRYONIC** **DEVELOPMENT**

- Tissue development very visible
- Appearance of blood vessels

TROUBLESHOOTING

- Low fertility
- Pre-incubation
- Improper fumigation
- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Rough egg handling
- Insufficient egg holding time
- Rough setting of eggs
- Contaminated eggs
- Nutritional-drugs-toxins





3

DAY 3 **EMBRYONIC** **DEVELOPMENT**

- Heart beats
- Blood vessels very visible

TROUBLESHOOTING

- Low fertility
- Pre-incubation
- Improper fumigation
- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Rough egg handling
- Insufficient egg holding time
- Rough setting of eggs
- Contaminated eggs
- Nutritional-drugs-toxins





4

DAY 4 **EMBRYONIC** **DEVELOPMENT**

- Eye pigmented

TROUBLESHOOTING

- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Rough setting of eggs
- Contaminated eggs
- Nutritional-drugs-toxins





5

DAY 5 **EMBRYONIC** **DEVELOPMENT**

- Appearance of elbows and knees

TROUBLESHOOTING

- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Rough setting of eggs
- Contaminated eggs
- Nutritional-drugs-toxins





6

DAY 6 **EMBRYONIC** **DEVELOPMENT**

- Appearance of beak
- Voluntary movement begins

TROUBLESHOOTING

- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Rough setting of eggs
- Contaminated eggs
- Nutritional-drugs-toxins





7

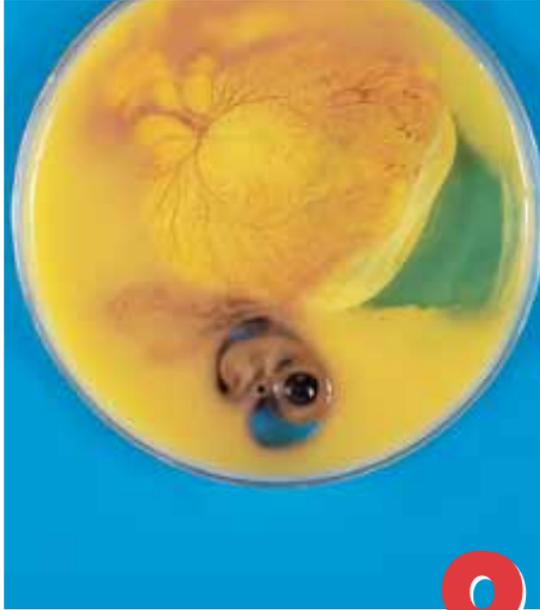
DAY 7 **EMBRYONIC** **DEVELOPMENT**

- Comb growth begins
- Egg tooth begins to appear

TROUBLESHOOTING

- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Rough setting of eggs
- Contaminated eggs
- Nutritional-drugs-toxins





8

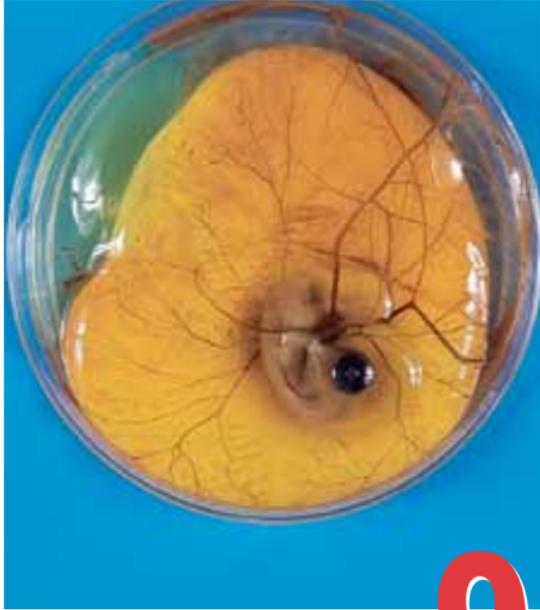
DAY 8 **EMBRYONIC** **DEVELOPMENT**

- Feather tracts seen
- Upper and lower beak equal in length

TROUBLESHOOTING

- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Insufficient egg holding time
- Rough setting of eggs
- Contaminated eggs
- Nutritional-drugs-toxins





9

DAY 9 **EMBRYONIC** **DEVELOPMENT**

- Embryo starts to look bird-like
- Mouth opening appears

TROUBLESHOOTING

- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Insufficient egg holding time
- Rough setting of eggs
- Contaminated eggs
- Nutritional-drugs-toxins





10

DAY 10 **EMBRYONIC** **DEVELOPMENT**

- Egg tooth prominent
- Toe nails

TROUBLESHOOTING

- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Insufficient egg holding time
- Rough setting of eggs
- Contaminated eggs
- Nutritional-drugs-toxins





11

DAY 11 **EMBRYONIC** **DEVELOPMENT**

- Comb serrated
- Tail feathers apparent

TROUBLESHOOTING

- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Insufficient egg holding time
- Rough setting of eggs
- Contaminated eggs
- Nutritional-drugs-toxins





12

DAY 12 **EMBRYONIC** **DEVELOPMENT**

- Toes fully formed
- First few visible feathers

TROUBLESHOOTING

- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Insufficient egg holding time
- Rough setting of eggs
- Contaminated eggs
- Nutritional-drugs-toxins





13

DAY 13 **EMBRYONIC** **DEVELOPMENT**

- Appearance of scales
- Body covered lightly with feathers

TROUBLESHOOTING

- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Insufficient egg holding time
- Rough setting of eggs
- Contaminated eggs
- Nutritional-drugs-toxins





14

DAY 14 **EMBRYONIC** **DEVELOPMENT**

- Embryo turns head towards large end of egg

TROUBLESHOOTING

- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Insufficient egg holding time
- Rough setting of eggs
- Contaminated eggs
- Nutritional-drugs-toxins





15

DAY 15 **EMBRYONIC** **DEVELOPMENT**

- Gut is drawn into abdominal cavity

TROUBLESHOOTING

- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Contaminated eggs
- Nutritional-drugs-toxins





16

DAY 16 **EMBRYONIC** **DEVELOPMENT**

- Feathers cover complete body
- Albumen nearly gone

TROUBLESHOOTING

- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Contaminated eggs
- Nutritional-drugs-toxins





17

DAY 17 **EMBRYONIC** **DEVELOPMENT**

- Amniotic fluid decreases
- Head is between legs

TROUBLESHOOTING

- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Contaminated eggs
- Nutritional-drugs-toxins





18

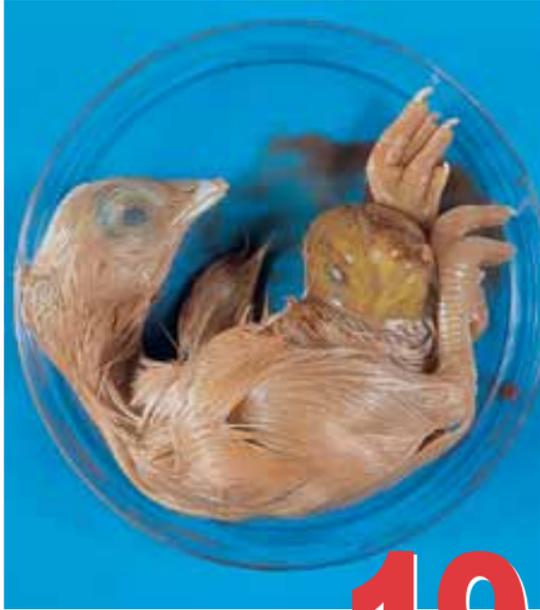
DAY 18 **EMBRYONIC** **DEVELOPMENT**

- Growth of embryo nearly complete
- Yolk sac is still on outside of embryo
- Head is under the right wing

TROUBLESHOOTING

- Hatcher opened too much during hatch cycle
- Rough transfer
- Transfer cracks
- Wet trays and hatchers
- Inconsistent transfer
- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Contaminated eggs
- Nutritional-drugs-toxins





19

DAY 19 **EMBRYONIC** **DEVELOPMENT**

- Yolk sac draws into body cavity
- Amniotic fluid gone
- Embryo occupies most of space within egg (not in the air cell)

TROUBLESHOOTING

- Hatcher opened too much during hatch cycle
- Rough transfer
- Transfer cracks
- Wet trays and hatcher
- Inconsistent transfer
- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Contaminated eggs
- Nutritional-drugs-toxins





20

DAY 20 **EMBRYONIC** **DEVELOPMENT**

- Yolk sac drawn completely into body
- Embryo becomes a chick (breathing in air cell)
- Internal and external pip

TROUBLESHOOTING

- Hatcher opened too much during hatch cycle
- Rough transfer
- Transfer cracks
- Wet trays and hatchers
- Inconsistent transfer
- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Contaminated eggs
- Nutritional-drugs-toxins





21

DAY 21

EMBRYONIC DEVELOPMENT

- Chick hatches
- Feathers dry
- Should be pulled from hatcher before becoming dehydrated
- No longer an embryo - will require feed, water, and controlled climate
- Bird ready for placement into house



cobb-vantress.com

L-7010-04

