

CHICK
EMBRYO
DEVELOPMENT



COBB-VANTRESS.COM

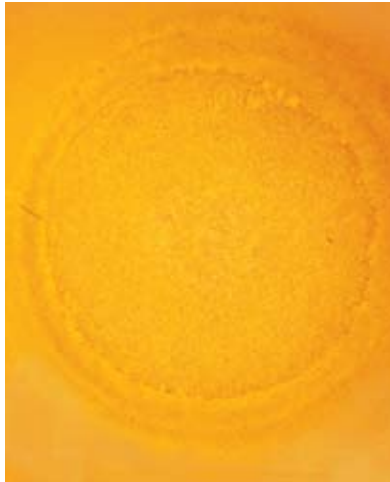
Microscopic View

Infertile



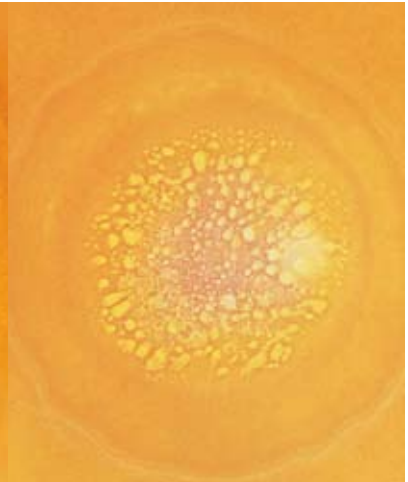
• No Development

Fertile



• Blastoderm

Infertile



• 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





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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





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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





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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





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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





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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





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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

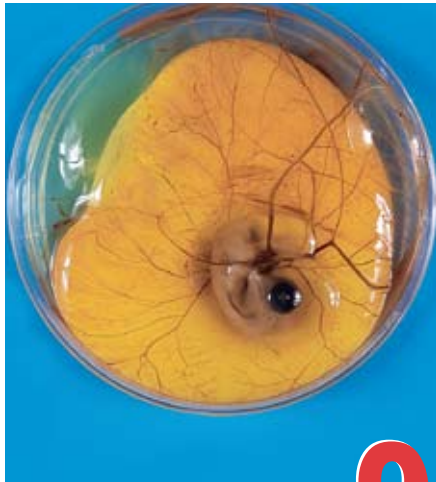
EMBRYONIC DEVELOPMENT

- 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





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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





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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





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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





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





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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





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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 hatcher
- Inconsistent transfer
- Improper turning
- Improper temperature
- Improper humidity
- Improper ventilation
- Inverted eggs
- Contaminated eggs
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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





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