

Research on Factors Affecting Embryo Metabolism & Chick Quality

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Egg Turning Duration and Embryo & Chick Survival

- objective: identify minimum duration eggs must spend at 45 degree to horizontal for normal hatchability
- eggs held on horizontal - better air flow through incubator



10 min

40 min

10 min

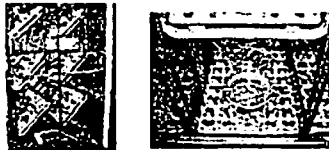


**To be presented at Atlanta meeting in January 2004*



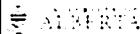
Comparing Embryo Metabolism & Heat Production of Modern Broiler Strains

- objective: determine if modern strains have a higher embryonic heat output than older unselected strains
- compare different modern strains at various parent flock ages



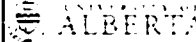
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Measure metabolism of individual embryos by placing eggs in metabolic chambers capable of recording carbon dioxide output



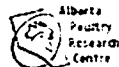
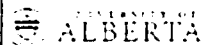
Comparing Hatchability & Chick Quality of Multi versus Single Stage Incubators

- objective: determine if there are differences in hatchability & chick quality in eggs from the same flock set in different incubator types
- field trial with a local hatchery



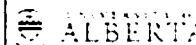
Establishing if the hole into the air cell created by *in ovo* injection influences hatchability

- objective: determine if the hole created when eggs are "embrexed" improves hatchability
- hole increases conductance of air into the shell - does this help the late incubation embryo survive?
- no vaccine or nutrients injected



Comparing Air Cell and Shell Temperatures

- objective: determine if there is a correlation between air cell & egg shell temperatures
- placed thermocouples in air cell and on shell and monitored throughout incubation



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