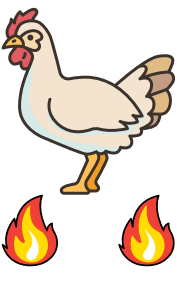


Potential of *In Ovo*-Fed Amino Acids to Improve Broiler Thermotolerance

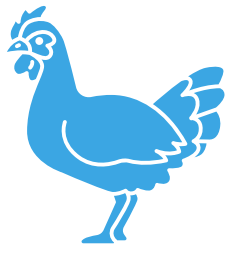
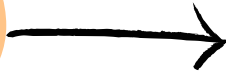
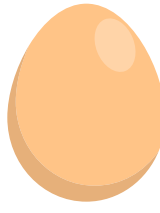


INTRODUCTION



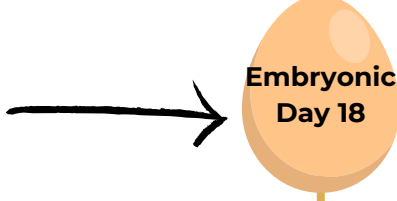
Global poultry meat consumption is on the rise, but the poultry industry faces economic losses due to heat stress caused by global warming. *In ovo* feeding is a technology used in poultry production that can be leveraged to alleviate the harmful effects of heat stress on broiler chickens.

Can *in ovo*-fed amino acids (leucine, methionine, and cysteine) mitigate the impact of heat stress on broiler chickens?

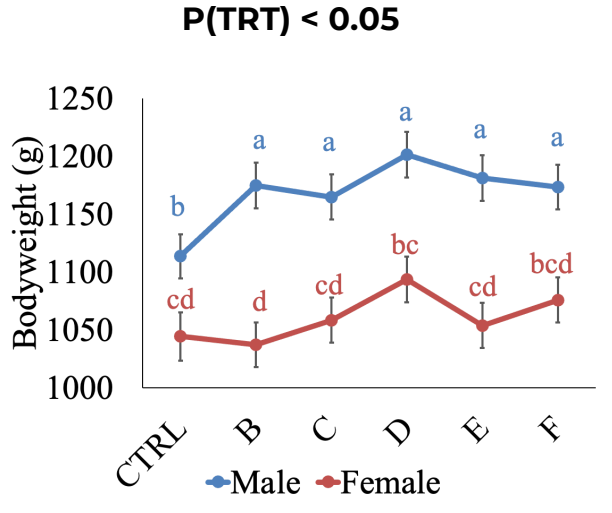
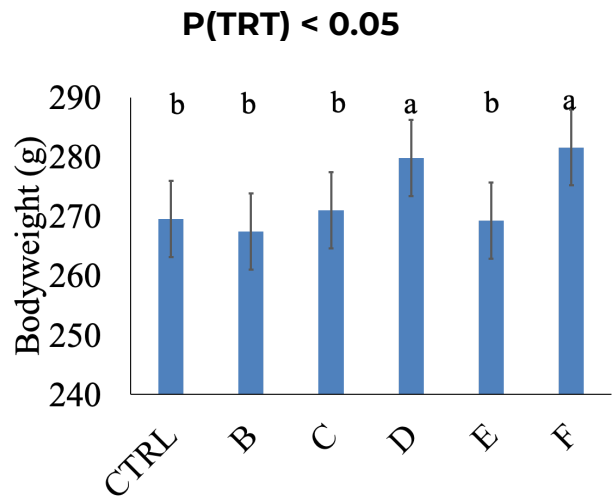
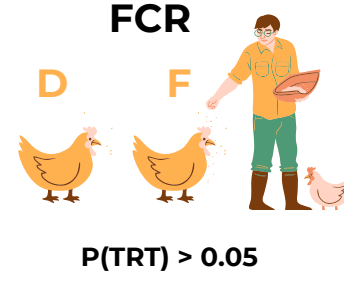
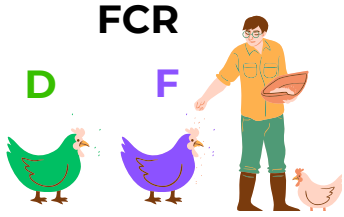


METHODOLOGY

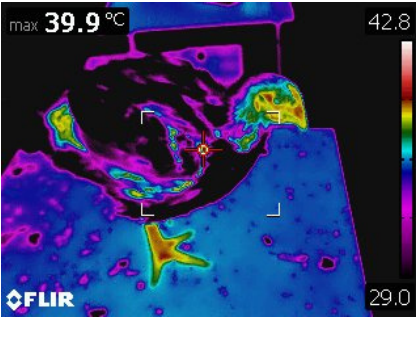
Treatments:
 (CTRL): Control
 (B) Leu
 (C) Leu + Met
 (D): Meth + Cys
 (F): Leu + Met + Cys



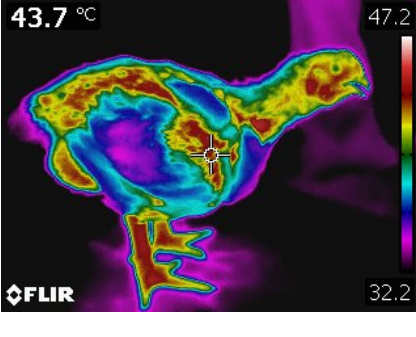
1680 fertile eggs (**Ross 308**) were injected with one of **five** treatments and placed in a complete-randomized block design



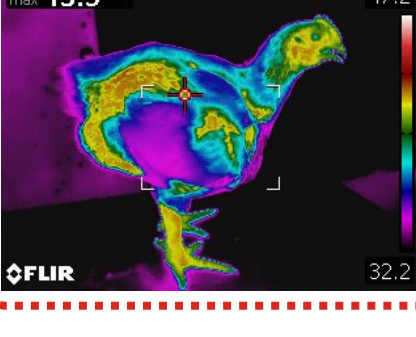
CTRL



CTRL + HS



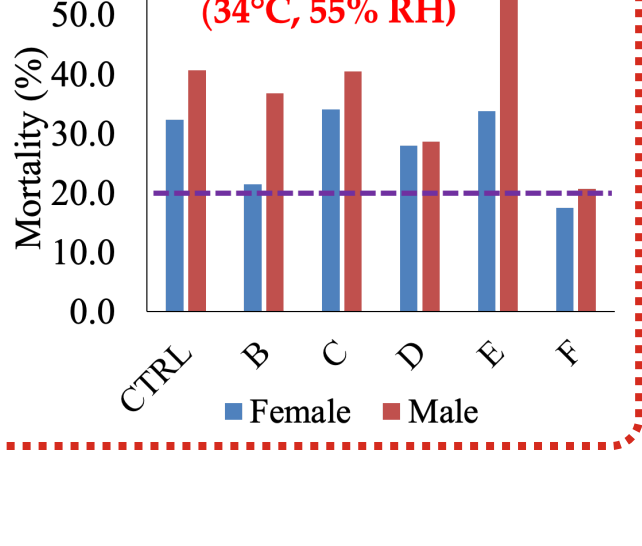
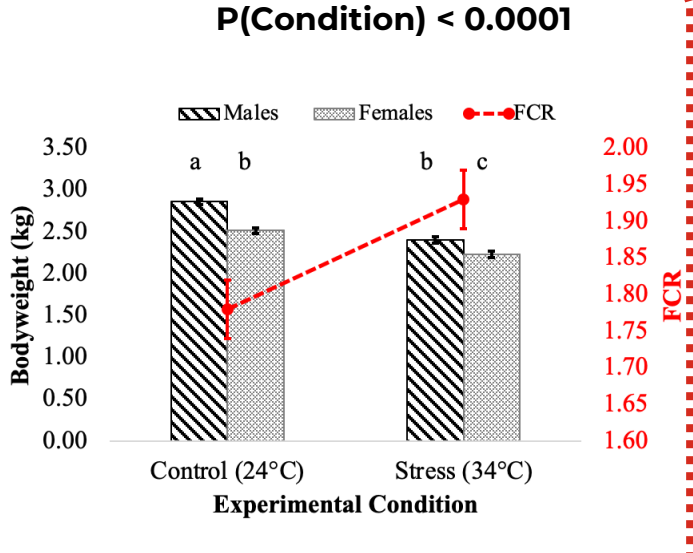
CTRL + HS + TRT



Day 29

Day 34

Slaughter



Treatment D & F:
 ↓↓ Facial Temperatures
 Lower avg. temp. (Days 29-34)
 Days 31, 32, and 34
 P(TRT × Age) ≤ 0.05

CONCLUSIONS

- Combination of AAs can improve performance (starter and grower)
- AAs reduce body temperature and lower mortality rates under heat stress

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