

DRY COWS

Does it pay to offer cooling?

Heat stress on lactating cows easy to measure.

Drop in milk production/DMI

Drop in reproductive efficiency

How can we measure heat stress impact on dry cows?

During Dry Period

udder cells recovering from previous lactation

replace old secretory cells & grow new cells – support milk

heat stress during this cell turnover – greatly impact next lactation

University of Florida Research
Dr. Dahl, et. al. 2004-2007 – 3 year study

Dry Off

Freestall Barn – heat stressed

(same dry cow diet)

Freestall Barn – cooling- fans/soakers

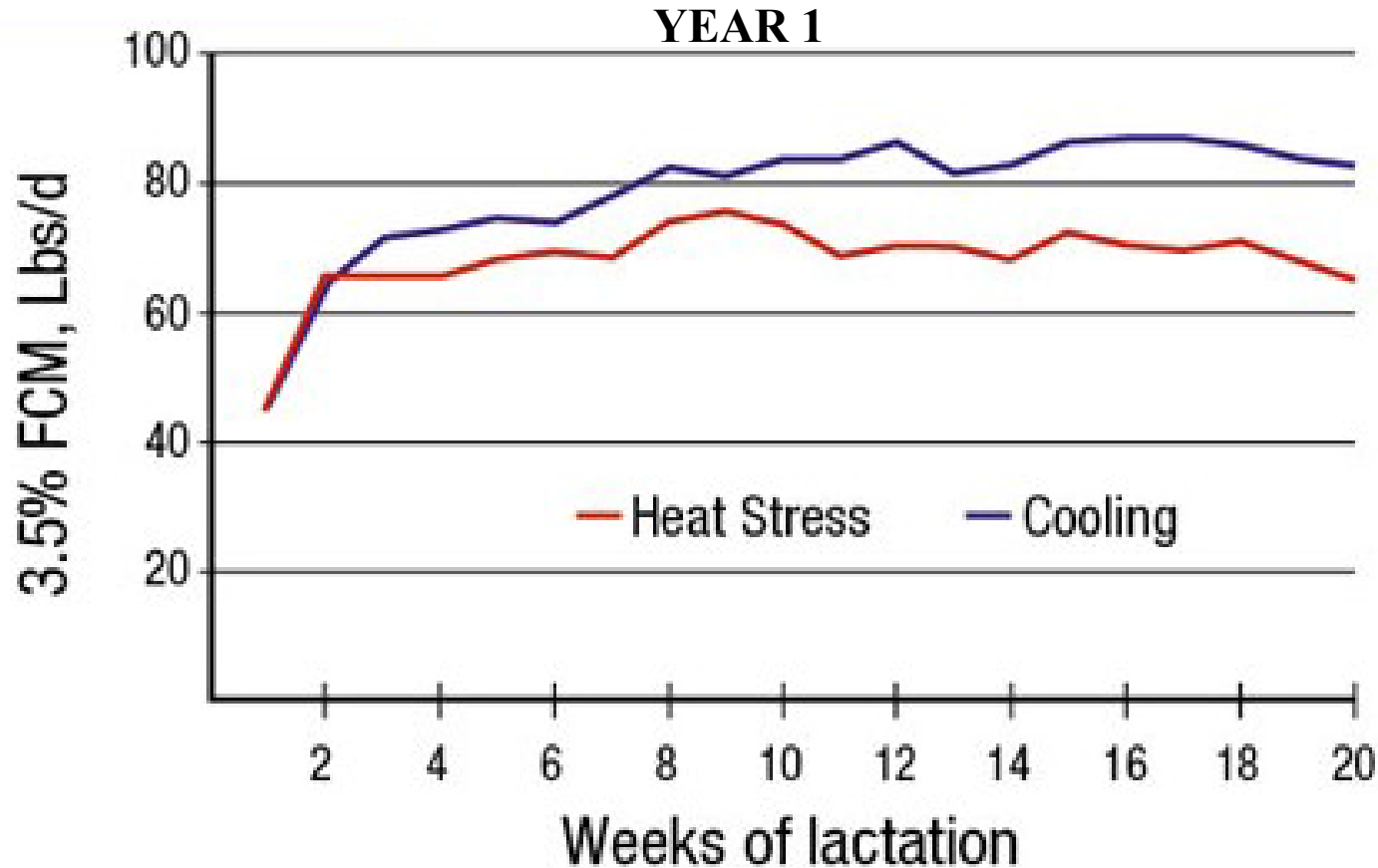


Calving – Freestall w/cooling

(same lactating diets)

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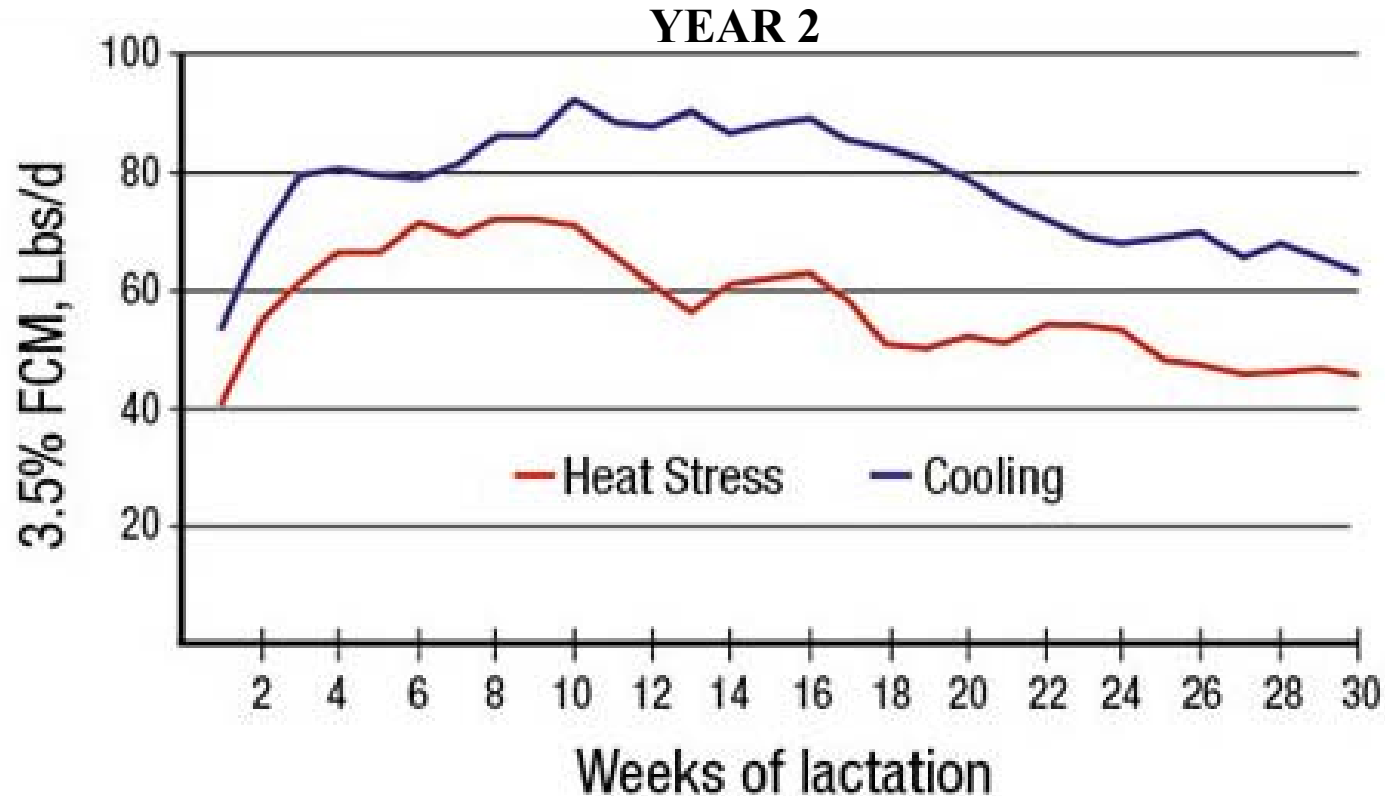
HS Reduced Dry Period by 7 days (38d .vs. 45d)

HS Calves born 28.7 lbs lighter (68.3 lbs .vs. 97 lbs)

HS Cows produced on avg. 11 lbs less milk/day

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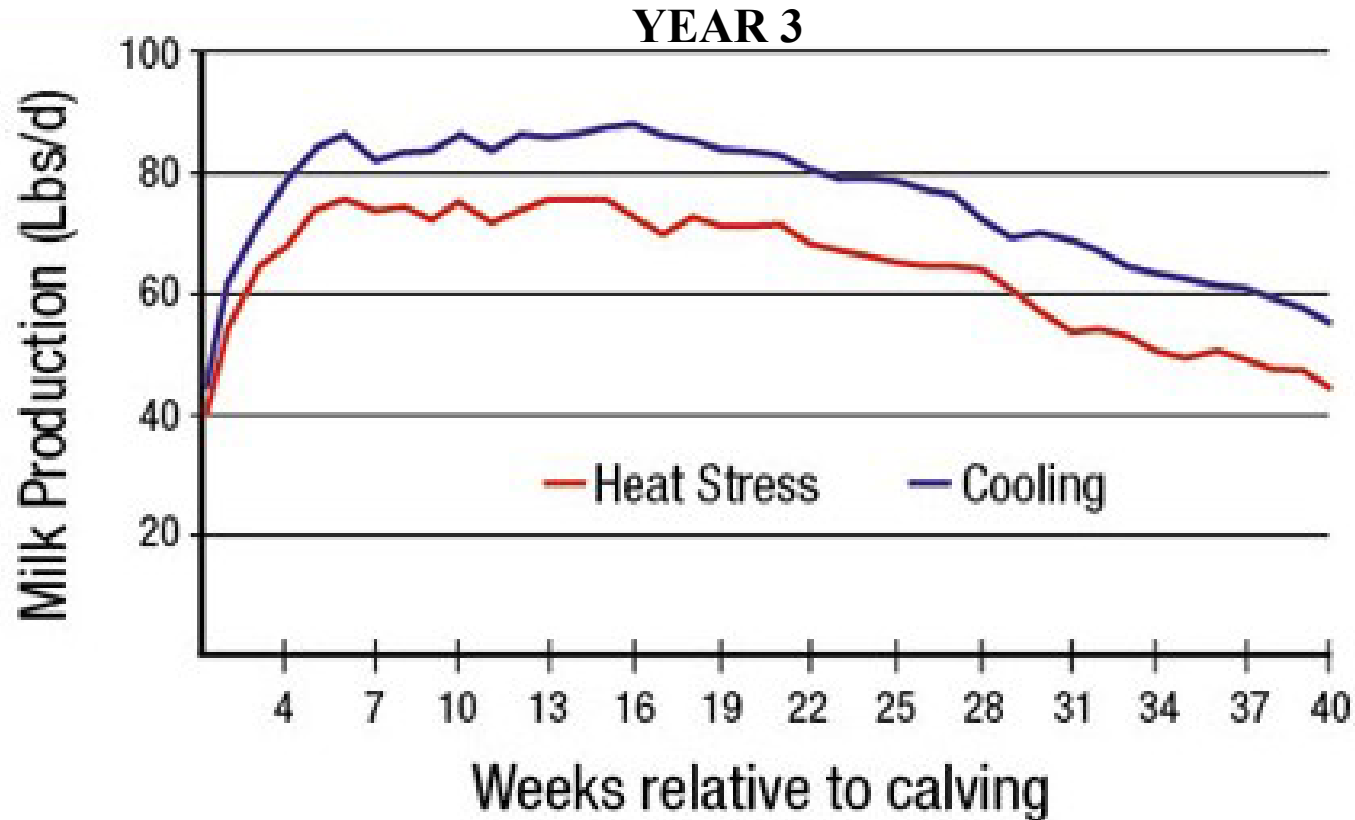
HS Reduced Dry Period by 7 days (39d .vs. 46d)

HS Calves born 11 lbs lighter (87 lbs .vs. 98 lbs)

HS Cows produced on avg. 18.7 lbs less milk/day

HS – Neutrophils – reduced function @ 2 & 20 DIM – reduced ability of animals to fight off infection (reduced immunity)

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HS – Reduced Mammary Gland Cell Proliferation (new cell creation)
HS Cows produced on avg. 10.6 lbs less milk/day