

# Heat stress in mature dairy cows

- Cattle are homeotherms, just like humans ☺
- Maintain core temperature at a set-point of  $\sim 38.5^{\circ}\text{C}$  ( $101.3^{\circ}\text{F}$ ) despite the changing environment
- Lactating cow's thermoneutral zone  $-15^{\circ}\text{C}$  to  $22^{\circ}\text{C}$  ( $5^{\circ}\text{F}$  LCT |  $71.6^{\circ}\text{F}$  UCT)
  - become **heat stressed** when the heat load exceeds the ability to dissipate heat effectively, and they start accumulating heat

