

Merino Ewe Welfare Research

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Animal Welfare

Animal welfare: ‘the physical and mental state of an animal in relation to the conditions in which it lives and dies’ (World Organisation for Animal Health).

In practice it’s the biological responses of animals to their environment:

- **Physiology**
- **Behaviour**
- **Health Status**
- **Cognition**
- **Productive Outputs**

- 1. Animal welfare is a multi-dimensional science**
- 2. One way to assess the welfare status of an animal is through physiological stress.**



Stress

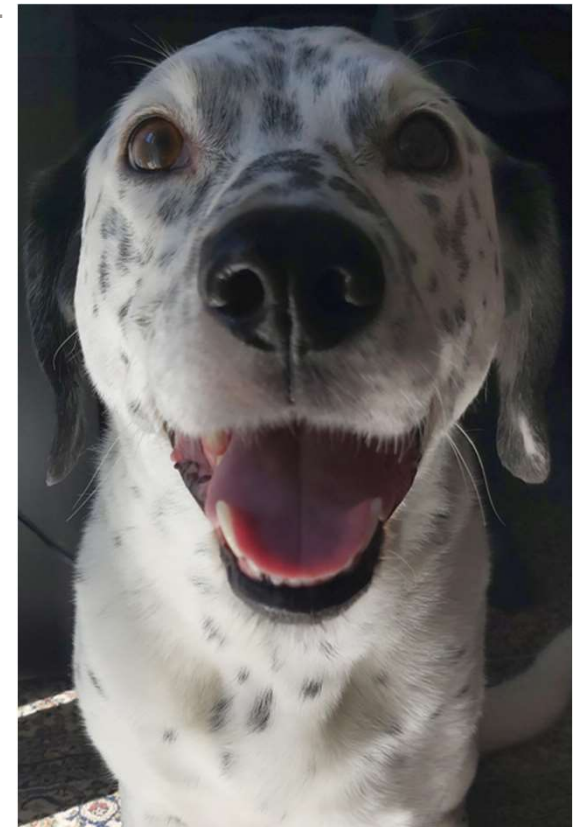
Stress: the biological response when an animal is confronted with a threat to its wellbeing.

Acute stress:

- Fight or flight response
- Can be beneficial in some cases
- Not all that harmful

Chronic Stress:

- Reproductive Function -
- Wool Production -
- Growth -
- Meat Quality -
- Immune Function -
- Parasite Load +
- Mortality Rates +
- Alters normal behavioural patterns



Maternal Stress During Pregnancy

Excessive increases in cortisol in early pregnancy can be harmful to the foetus.

Stress during mid pregnancy leads to reduced wool follicle density emergence in the developing foetus = less wool production.

However cortisol production in late pregnancy is important for foetal development of crucial organ systems.

= Timing is Important

Stress in Wool



Thank you

