GPS technology in animal agriculture

Digital Agriculture

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Technology for animal agriculture

- Walk Over Weigh (WOW) scales
- Drones
- Infrared technology
- Accelerometers
- Cameras
- Temperature and heart rate sensors
- RFID
- Automatic and robotic milking systems
- Apps

- Livestock tracking – GPS technology
Importance of technology in agriculture

Ageing population

Increase in producers wanting to use technology to make better informed (and timely) decisions
The importance of technology in animal agriculture

With technology, no additional forage will be needed in 2050.
GPS technology applications - Livestock behaviour

- Social interactions
- Offspring – Cow
- Grazing, resting etc.
GPS technology applications - Environment interactions

- Water
- Shelter
- Elevation
GPS technology applications - Pasture quality & biomass

Crude protein

Biomass
GPS technology applications

- Management strategies

- Pasture and paddock utilisation differences (native vs. improved paddocks)

- Stocking rate paddock utilisation differences

- Paddock boundary
GPS technology applications

- Animal welfare

Circling behaviour ('centripetal formation')

Sheep predation/ Dog attack
Conclusions

- Endless applications of GPS technology
  - Animal (behaviour, health, breed, species, age)
  - Pasture (quality, biomass, species, paddock)
  - Environment (climate, rainfall, elevation, soil)
  - Management (different stocking rates, paddocks)

- Increased collaboration needed