Copper Deficiency

Produced for the CRC for Premium Quality Wool undergraduate program by;
Dr. David Masters, CSIRO Animal Production.
Copper

**Effects**
- Swayback
- Fragile bones
- Anaemia
- Depigmentation
- Loss of wool crimp

**Occurrence**
- Low copper soils
- High molybdenum and sulfur intakes
- High iron intakes
Diet with high S and Mo

SO₄⁺ microbes → S⁻² + Cu²⁺

CuS

MoO₄⁻² → MoS₄⁻² + Cu²⁺

CuMoS₄⁻²

Less Cu and more MoS₄⁻² absorbed

Insoluble Cu compounds

Rumen

Source: Gawthorne, J.
Factors affecting incidence of mineral deficiencies

**Primary factors**
- Parent rock
- Climate

**Secondary factors**
- Time of the year
- Fertiliser
- Improved pasture
- Recent rainfall/temperature
- Distance from the ocean
- Supplementary feeding
- Soil/faeces consumption