

What is happening here?

Oats sown with
80 kg
DAP/hectare



Soils

Broadening our focus

Deepening our understanding

Building our skills & capacity



Soil Health

Why it matters...



Why it matters



Why it matters



Why it matters



Why it matters



Why it matters

Run-off from a 7mm storm



Same storm but with 100% cover - no run-off



Photos: David Marsh - Borowa

Why it matters



Why it matters



What is soil health?

*A healthy soil is one that is in good condition. Its key **physical, chemical and biological** properties are in reasonable ranges for the soil type.*



Soil chemical properties

pH, Salinity, exchangeable cation proportions (Sodium, Aluminium, and the non-acidic Cations)



Soil biological properties

Microbes,

Soil Organisms,

Root Activity,

Organic Matter



Soil physical properties



Aggregation, porosity, Bulk density, aeration

Healthy soils

Store and cycle water and nutrients effectively. Have good airflow. Provide optimal conditions for plant growth and health. Regulate soil borne pests and diseases.



Soil health *versus* soil fertility



Soil health is not the same as soil fertility. There are 2 key aspects to soil management: managing a soil's health and managing its nutrients. The two are interconnected but you need to address soil health first or you will always be wasting your nutrient dollars. ...

Achieving healthy soils



Awareness - understanding - skills - decision-making ability

Achieving healthy soils



Confidence to innovate and adapt

Healthy soils

Resilient soils

Resilient landscapes



Resilient farming systems



Being able to meet challenges and disruptions and still move ahead positively...