



PLANET SOIL HEALTH

| supporting soil life



OUR GOAL is to deliver sustained cotton productivity growth by improving soil health. This aligns to UN Sustainable Development Goal 2.4: implement resilient agricultural practices that increase productivity, help maintain ecosystems, strengthen capacity for adaptation to climate change, and improve land and soil quality, and; UN Sustainable Development Goal 15.3: strive to achieve a land degradation-neutral world.

Soil is key national asset



Soils are a national asset.

Healthy soil is the starting point for productive agriculture and the foundation of all terrestrial life. It underpins the fertility and productivity of a farming business, providing cotton plants with support and access to water, oxygen and nutrients.

Healthy soil is alive.

Healthy soil is a living, dynamic environment, full of microbial and macroinvertebrate life that help to recycle essential plant nutrients, improve soil structure, and control plant disease and pests.

Soil health is the capacity of soil to function as a living system¹. This means the principles for improving soil health are to provide food and shelter to the living organisms within soil.

Healthy soil is alive. To support soil life, we need to¹:

Protect soil habitat



- Maximise soil cover
- Minimise disturbance
- Physical
- Chemical

Feed soil organisms



- Maximise living roots
- Maximise biodiversity
- Below ground
- Above ground

¹Adapted from USDA Principles for High Functioning Soils.

Farmers are using practices to provide a healthy soil system.

Soil health can vary across different geological conditions, ecosystems and land uses.

Australian cotton farmers use practices such as minimum tillage, controlled traffic farming, rotational crops, cover crops and optimising fertiliser application to optimise the health of the soil on their property.

Understanding how farming practices impact soil properties is critical for farmers to make the best soil management decisions.

Soil health's complexity makes it difficult to measure at industry scale, and very difficult to boil down to a small number of indicators. In addition, there is no standardised approach to soil monitoring and evaluation at a national level. The National Soil Strategy was released in 2021 to deliver nationally consistent key performance indicators and methods to measure and report soil conditions. It was designed to provide the framework for collaborative and cooperative actions.

The cotton industry supports this Strategy and will work with others to adopt a nationally consistent approach to measuring soil health. **Indicators and targets** that focus grower and industry attention on the areas that most impact soil health can then be developed. It is hoped these indicators will be in place by 2022, when the National Soil Strategy Action Plan will be developed.

While the industry will wait for the development of nationally consistent indicators to measure soil health, its work to improve soil health has been a priority for many years and will continue. Our current **pathway** to improve soil health is to:

1. Assess, maintain and improve soil structure
2. Manage crop nutrient requirements efficiently and effectively
3. Monitor and manage erosion risks
4. Collaborate with other agriculture sectors.