

## R-CV 8: Improving Soil Health

Investigate effective techniques for improving the health of soil and develop appropriate extension materials, with the aim of improving land management and reducing sediment and nutrient runoff.

<b>This strategy delivers on these Regional Themes</b>	Biodiversity ✓	Biosecurity ✓	Coastal Systems	Sustainable Industries ✓	Water ✓
<b>This strategy delivers on these Strategic Outcomes</b>	Supportive, policies, plans and regulations	Collaborative, adaptive planning and action ✓	Traditional Owner Benefits	Sustained and diverse resourcing	Community stewardship, values and action ✓
<b>Outcome</b>	<p>Improving soil health across the region will have a huge impact on a range of agricultural and natural systems, including:</p> <ul style="list-style-type: none"> <li>▪ Reductions in sediment and nutrient runoff;</li> <li>▪ Improved agricultural productivity, diversity and resilience;</li> <li>▪ Reductions in the use of chemical fertilisers;</li> <li>▪ Possible reduction in agricultural input costs.</li> </ul>				
<b>Justification</b>	<p>Soil health has a huge impact on the diversity, productivity and condition of agricultural and natural systems. Healthy soils can improve agricultural productivity, reduce reliance on chemical inputs and their associated costs, and minimise agricultural runoff to waterways and the Great Barrier Reef lagoon. Robust scientific evidence can be accessed and translated into appropriate extension material to provide landholders with the opportunity to make informed choices regarding the management of their soil. There are also a range of innovative products which require further investigation regarding their effectiveness in improving soil health.</p>				
<b>Key steps</b>	<ol style="list-style-type: none"> <li>1) Establish stakeholder groups with representatives from the farming community, industry and research organisations to discuss and evaluate current options for improving soil health, as well as identifying ideas which require further research.</li> <li>2) Review and collate independent research results, or develop new research programs, around alternative approaches to soil health.</li> <li>3) Develop a plan to communicate and showcase success stories, particularly where innovative or non-mainstream practices have been used and scientifically proven to improve soil health.</li> <li>4) Develop links with other extension, incentive and communication programs across the region to ensure a clear, consistent message is reaching the relevant audience.</li> </ol>				
<b>Feasibility considerations</b>	<ul style="list-style-type: none"> <li>✓ With appropriate education, extension and uptake of ideas, there is potential for improving agricultural productivity and financial returns to farmers.</li> <li>✓ There is a strong network of informed landholders committed to improving soil health and willing to try a range of different techniques.</li> <li>✗ Sufficient scientific information and extension material is not readily available on many techniques to improve soil health, making it difficult for landholders to make informed choices or to implement ideas.</li> <li>✗ Resistance to change or a desire to continue doing things how they've always been done can make it challenging to get new ideas to be accepted by the broader community.</li> </ul>				

Local Landscape Projects	Local Landscape Project	Location
	NC19 Soil Protection	Northern Cassowary Coast
	DG7 Nitrogen Use Trials	Douglas
	DG9 Soil Testing	Douglas local landscape
	DG12 Diatomaceous Earth Replicated Trial	Douglas local landscape
	HB14 Microbial Trials	Herbert catchment, then expanded to other areas