

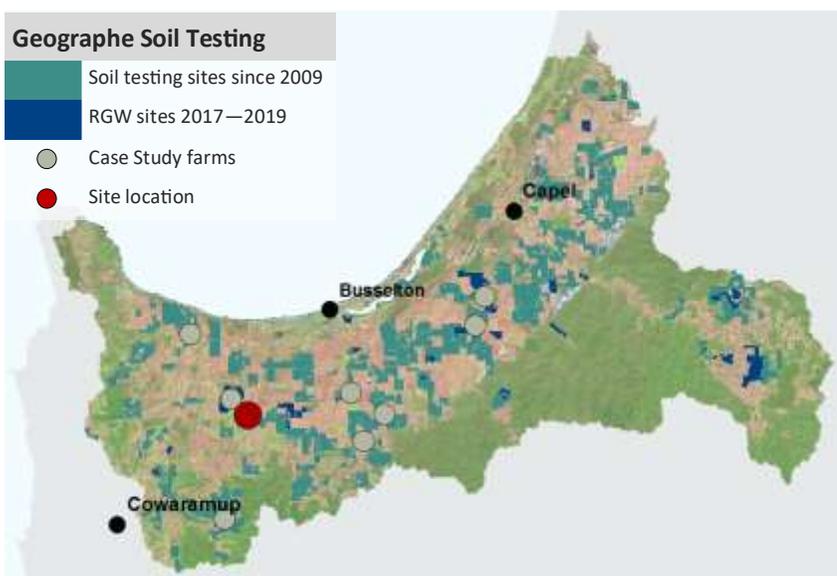
MOST SIGNIFICANT CHANGE

- More targeted and efficient application of fertiliser.
- Increased confidence in accuracy of fertiliser spreader through testing.
- Increased value of independent agronomic advice to improve pasture management.

Case Study Farmer - BRODIE ALLEN & FAMILY (ALLENGRO FARMS) Targeted fertiliser application for higher production

Geographe Soil Testing

-  Soil testing sites since 2009
-  RGW sites 2017—2019
-  Case Study farms
-  Site location



LOCATION

Boallia

LANDSCAPE

Swan Coastal Plain

ENTERPRISE

Beef breeders

PROPERTY SIZE

150 hectares

Over 420,000 ha of farming land has been soil tested in the Geographe Catchment over the last ten years in partnership with the Department of Primary Industries and Regional Development.



Background

Brodie and wife Louise, along with parents Geoff and Gillian, run their 150 hectare farm in Boallia, 20 kilometres south-east of Busselton.

Geoff moved to the farm in 1954 and has been farming since he was 15. The family currently runs 200 Angus breeders on the property.

Their long term goal is to increase the pH of their soil, improve pasture composition and overall production, and expand the farm business.

Soil testing

Brodie signed up to GeoCatch's soil testing project in 2018. He wanted to increase his knowledge of soil nutrients and the overall efficiency of his fertiliser regime.

"Our fertiliser practices were quite intensive on this farm. We definitely like to keep the fertiliser levels up to grow the grass because we are running quite a high stocking rate."

The soil test results in 2018 revealed that phosphorus (P) was adequate and pH across most paddocks was marginal.

In response, Brodie applied 40 tonnes of lime across the property to increase pH.

He also adapted his fertiliser regime to be more targeted and reduced the amount of P he was applying.

AVERAGE SOIL TEST RESULTS 2018

TARGET PRODUCTION: 95% of maximum

High P	Medium K	High S	Marginal pH
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"We definitely zero in on the different elements we're going to put in our mixes now, rather than just going for a single Super blanket across the farm."

Fertiliser spreading

In addition to getting his fertiliser mix and timing right, Brodie also wanted to ensure his fertiliser spreader was accurate. He brought his spreader to an Accu-Spread field day in 2019 to test its accuracy and was pleased with the results.

"Some of the cost savings we've attributed to our farm have been basically just spreading fertiliser more accurately and more evenly across the farm."

One factor Brodie hadn't considered was altering his spreader width for greater efficiency. He has used the Accu-Spread test results, along with his phone app, to calibrate his spreader and improve fertiliser use efficiency.

Outcomes

Brodie has made significant changes to the

Table 1: Three-year Fertiliser Investment

	2017	2018	2019 (planned)
Super Potash 21 (t)	0	17	0
Single Super (t)	11	0	4
Muriate of Potash (t)	0	0	4
Urea (t)	0	6	14
NS61 (t)	0	6	0
NKS21 (t)	11	17	0
NKS32 (t)	0	0	21
Lime (t)	0	40	0
pH (average)	0	4.54	4.54
Cost	\$10,230	\$26,500	\$23,590
Soil test	N	Whole farm	Targeted
Tissue test	N	Targeted	Targeted

way he approaches fertiliser. He is now more targeted and focuses on the needs of individual paddocks. He substituted his Super application for alternative fertiliser mixes that included more nitrogen (N) and potassium (K), and less P, in 2019 on the advice of an independent agronomist.

AllenGro Farms plans to invest in regular, independent agronomic advice to guide fertiliser decisions from now on.

While Brodie and Geoff are now spending more on fertiliser, they are applying the right



type in the right place, and their pastures are improving as a result.

"Through better pasture management, we've seen higher yields and better growth rates."

More significant changes...

- Brodie will invest in **whole-farm soil testing** every three years to guide fertiliser decisions.
- The fertiliser regime at AllenGro Farms is now more **strategic, targeted and scientific**; a major shift from the previous **'blanket Super'** approach.
- **Phosphorus** application **reduced by 73%** in two years. **Nitrogen and Potassium** application **increased** across the property.
- The support and advice provided from an **independent FertCare Accredited Agronomist**, who was made available to farmers during the project, has made Brodie **more confident** in his fertiliser decisions.

Lessons learned

Because Brodie and Geoff run a high stocking rate on the property, they need to maintain quality pastures. While their approach to applying Super and Super Potash grew the grass they needed for the cattle, an investment in lime would have addressed the pH constraint that was preventing the uptake of P.

"A lot of farmers will just do blanket. They'll put this rate of Super on every year, and it's been done for 50 years. You actually find when you test that some paddocks are very high in phosphorus and haven't needed any extra for the last 10 years."

The Allens now take a more targeted approach to fertiliser application and feel confident that through monitoring the nutrients in the soil, supported by tissue testing, the reduction in P application will not affect pasture growth.

Where to from here?

The Allens are focussed on continuing to achieve high production on their property and increasing farm productivity and profitability. They are committed to keeping nutrients on their property by being more targeted with their fertiliser application.

The Best Practice Fertiliser project is delivered in partnership with the Department of Primary Industries and Regional Development and is part of the Revitalising Geographe Waterways program. The project works directly with farmers and industry to improve fertiliser management through soil testing, nutrient mapping, workshops and access to agronomic advice to ensure fertiliser and profits stay on the farm and out of Geographe waterways.

