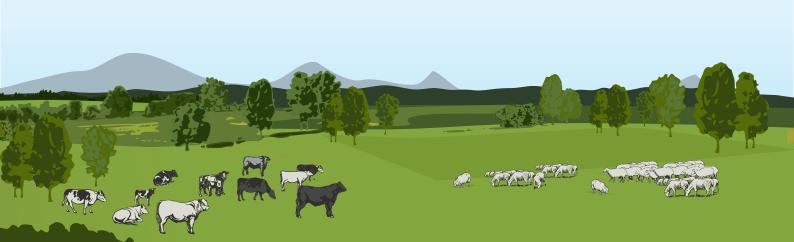


# Measuring the impact of RMPP Action Network





### **RMPP Action Group**

## supports farm business to begin transition to regenerative farming

**Location: South Otago** 

Farm type: 280 effective hectares

Farm business goals: improved profitability, pasture management, managing our soils, animal performance



#### Key measured changes



Increase in stock units



Decrease in cropping costs

**↑**\$24,330 p.a.



30% of annual EBITRm increase attributed to involvement in their Action Group

Joining a Red Meat Profit Partnership (RMPP) Action Group with a focus on regenerative farming has helped set a South Otago farming couple on the path to a major farming system transition.

While it is expected to take another two years before their regenerative farming system is stabilised and the full benefits are recognised, the farm business is on course to significantly increase profits.

The couple purchased the 280 effective hectare farm, together with their equity partners, in 2014. It had been farmed in a conventional system on forty-year-old pastures, carrying 2,600 stock units.

Initially, the partners undertook a development programme which included growing wheat in a regrassing programme, capital fertiliser, carrying hogget grazing stock, and building up their own stock numbers.

However, within two years it became apparent that the soil health was suffering under this system, including loss of soil structure and poor drainage.

All parties were keen to move to a farming system which would provide a better balance of sustainability across soil, plants, and animals. Regenerative agriculture practices fitted the bill for them on numerous levels, including the focus it gave them on soil health, the diversity of pasture species that it introduced, and the potential for lower chemical and cost inputs.

The couple joined the Action Group with a regenerative farming focus in 2018. Through their time in the group, they have been steadily transitioning towards a regenerative farming system and have developed a vision as to what the system will look like once fully established.





They say the group has been fundamental in providing mutual support for those who are "breaking new ground" in what would otherwise be a very lonely process.

They cite the moral and technical support offered by the group as invaluable in helping them to progress significant change. This includes both the access to leading experts on regenerative agriculture – which has helped them on the road to developing their methodology - and the opportunity to share ideas, information and experiences with farmers with similar goals, objectives and vision.

They found the small group format a positive environment for learning, with members encouraging one another and keeping each other accountable for their goals. This has included visiting fellow members' farms and hosting a visit to their farm.

A major challenge for the farm business in making the transition to regenerative agriculture has been how to develop grazing management techniques under a sheep-dominant regime which meet the regenerative agriculture criteria as well as meeting stock performance and revenue expectations.

Their objectives in the group have been to understand the key drivers behind building soil health, including learning about observational tools and testing methods that can be employed, enabling the understanding of the health of their soils.

They also wanted to learn the fundamentals of mixed pasture systems in a New Zealand context, including potential plant mixes suitable to the southern South Island.

They needed to consider ways to minimise the effects of set stocking issues over lambing and other times of the year and to understand the key components – irrespective of farming approach - that would drive efficiency and profitability for their farm business.

With the learnings gained from the RMPP Action Group, the business has transitioned to carrying 3,300 stock units. Further increases may be possible. Main features of the change include a move away from cereal cropping and focus on soil health. The total area of winter crop grown will reduce from fifty hectares to twenty hectares. They are introducing more diverse plant species into the winter crop and permanent pasture composition, including red clover, white clover, timothy, prairie grass, cocksfoot, ryegrass, and plantain.

They are developing grazing management techniques to manage the higher residual grazing methodology which allows up to a third of the pasture mass to be composted for improved nutrient return and soil health.

A more flexible stock policy is being introduced to allow grazing pressure to be adjusted more readily as conditions change throughout the season – such as selling store lambs post-weaning along with a high proportion of trading cattle.

Weed and pest chemical applications are being reduced – with the plant diversity encouraging beneficial insects that help control pest insects. They have moved to mainly organic-based fertilisers, with some use of urea still.

Adapting grazing management under a sheep-dominant system has been challenging but the rewards in improvements in resilience and stock health along with reduced input costs are already becoming apparent.

Financial estimates suggest that there will be an improvement in EBITRm of approximately \$81,100 annually, once the transition into full stock carrying capacity under regenerative farming has taken place. The couple attribute at least 30% of this annual gain to the RMPP Action Group to which they belong – an annual benefit of \$24,330.

Alongside enhanced efficiency and profitability however, they say it is equally important to them to have been supported in developing a farming system which meets their value criteria around sustainability and a wholesome balance between soil, pasture, and stock health. They strongly believe that this, in turn, will meet the expectations of the future consumer.























### High performing King Country farm lifts bar higher

Q. T.

**Location: King Country** 

Farm type: 2,500 effective hectares

Farm business goals: animal performance, environment,

business planning



#### Key measured changes



Cattle income (\$/cattle stock unit)



**Gross Farm Revenue** 





70% of annual EBITRm increase attributed to involvement in their Action Group

Lifting the bar for an already high-performing farm was the target for a King Country farming couple when they joined an RMPP Action Group.

Participating in the group has resulted in them making wide-ranging changes across their cattle and sheep systems, environment, and business planning. Overall, the farm business has lifted Earnings Before Interest, Tax, Rent and Managerial Salaries (EBITRm) by \$42.25/ha. They attribute 70 per cent of these gains to their involvement in the Action Group.

The farm business includes several sheep and beef farms and a dairy farm, totally 2,500 effective hectares. With farmer groups not common in the King Country, they welcomed the opportunity to join the Action Group, to meet with other farmers to share ideas and challenge their thinking.

The goal of their group was increase red meat production per hectare, understand the key drivers of a business and what can be done to optimise business outcomes. This farm business's individual goals were to grow production, profit, and staff, be environmentally and socially sustainable and to create a resilient farm system and lift performance.

The changes to the farm business's cattle system have been extensive, focusing on stock policy and mix, winter carrying capacity, and grazing management to target gains.

Their previous system ran bulls, steers, and heifer grazers in a mix of conventional and cell systems. Steers were purchased in the spring and fattened. Heifers from the dairy farm business were taken on from 100kg live weight (LW) and returned to the dairy farm on 1 June as an in-calf rising two-year olds (R2).



Bulls and steers - 400-500kb live weight (LW) - were run on hill-country alongside the sheep. However, this was causing increased soil erosion over the winter.

They now mainly purchase bulls at 380-400kg LW in the autumn, finishing them over the following twelve months. Autumn purchases provide flexibility to not buy stock in dry summers, or delay purchases until they hit target pasture covers in autumn. It also means they don't have two age groups on-farm over the summer and LW gain per hectare have improved as a result. Dairy heifers now return to the dairy farm on 1 May, to allow covers to be built on the beef cell platform.

Increased subdivision has lifted winter carrying capacity on the beef cells, allowing superior grazing management and improved pasture utilisation. This has enabled the round to be extended to 90 days. A longer round and shorter residuals has resulted in better quality spring pasture and greater animal growth rates. There has been a resulting lift of \$91,040 p.a in cattle revenue.

The farmers were keen to lift two tooth scanning to within five per cent of their mixed age ewes. Feeding hoggets better prior to mating and increasing hogget weaning weights were identified as opportunities to lift performance.

Thirty hectares of turnips were planted to be grazed over the 2020 summer to provide sufficient quality and quantity of feed to achieve these targets. The summer was very challenging, partly due to the widespread drought, but hoggets were estimated to be 5-6kg ahead of where they would have been if the crop were not available. Overall, the measures still resulted in a net gain of \$9,580 for the farm business. Cropping is now going to be tested for another year.

One of the members of the Action Group is an environmental consultant, group visits to members' farms always included an environmental discussion. This farming couple has now extended their existing environmental measures to include fencing off waterways, matching the right class of stock to the land and soil type and undertaking erosion plantings. Most cattle are wintered in cell blocks on rotations minimising soil damage and pugging. Some steers and in-calf heifers are wintered with the ewes.

Waterways have also been fenced off and will be planted in coming years. Around 20,000m of fencing has been installed, predominantly two-wire electrics to ensure cattle are excluded.

Additionally, thirty hectares of more marginal land has been planted in Pinus Radiata, to be managed as a production forestry lot. A further ten hectares will be planted in poles and native trees to minimise erosion in hill country.

The farmers have implemented quarterly planning and review meetings with their farm consultant and introducing the use of Farmax in their business. Using Farmax was one of the key attractions for them joining the Action Group and they have found it has added significant value, including its use for modelling all their system changes.

They cite the moral and technical support. Benchmarking and accountability resulting from the group dynamic is seen as a vital part of its benefits to their business. This includes having people with similar aims and objectives, working together to sharing ideas, seeking out new information, translating that into positive outcomes and encouraging each other to adopt. The farmers found the Action Group a safe environment that has fostered engagement, with the objectives and workplan providing a vision for positive outcomes.

The net result for the business is an overall \$105,660 benefit to the business (\$42.25/ha/p.a.). Of this, they attribute 70 per cent to their participation in their Action Group (\$31.70/ha/p.a.).

Their RMPP Action Group is now self-funding with all



























## Whanganui farm business addresses untapped potential of its land



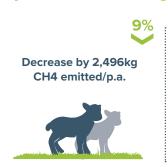
Location: Manawatu-Whanganui

Farm type: 585 effective hectares hill country and flat Farm business goals: environment, animal performance,

managing our soil



#### Key measured changes



Target lambs survival to sale of 140%



Improved fertiliser efficiency



Mating a % of hoggets

↑ \$93,681 p.a. ↑ \$160/ha/p.a.



100% of annual EBITRm increase attributed to involvement in their Action Group

Membership of a Red Meat Profit Partnership Action Group has given a Manawatu-Whanganui farming couple the confidence to begin to make changes to release the untapped potential of their land.

Since joining the group in 2017, they have increased lamb survival to sale numbers and fertiliser efficiency, and at the same time, beginning measures to reduce greenhouse gas emissions (GHG). Potential has been identified for their farm business to achieve a \$160 per hectare net gain per year.

They attribute 100 per cent of this progress to their participation in the Action Group – noting that the most important influence for them has been the specialist speakers and the technical support offered.

This farming couple purchased their 585 effective hectare property from family in 2015 but had already been working on it. While it had been run with a conservative farm systems approach, they were keen to farm more sustainably while increasing profitability, to cover debt incurred in buying the farm and fund future development and growth.

Forty five per cent of their usable land is flat and the rest mainly steeper hills. Through participation in the Action Group, including hosting a meeting at their farm, the couple identified the untapped potential of their large amount of flat land, along with opportunities to improve ewe efficiency, by targeting sheep performance and mating of hoggets. They also learned about better management of fertiliser for cropping and how these measures could work side-by-side with reducing their environmental footprint.



These included use of well-managed hogget mating to increase the animals' lifetime reproductive performance and use of good management practices to avoid nutrient losses while optimising production.

Trialling mating ten per cent of their hoggets that met live weight targets has resulted in lambing 75 additional lambs, already adding a further \$7,500 annually to their business.

Currently the farm runs between 2,300 and 2,400 mixed age ewes, emitting an estimated 28,200kg of methane annually. The aim of the farm business is to produce 3,000 lambs annually. Calculations have shown that improving ewes' production efficiency and lamb survival to sale in this way has the potential to decrease total methane by 2,496kg annually, with only 2,142 ewes required to produce the same number of lambs.

The plan is now to continue to mate up-to-weight hoggets – with decisions on whether to mate them taken on an annual basis, depending on the season and feed availability. Overall, it is estimated this approach has the potential to lift lamb survival to sale by 140 per cent and add an additional \$82,550 annually to their gross farm revenue.

Before the couple joined the Action Group, there was minimal regrassing at the farm. However, membership highlighted for them how their flat land has the potential to be the powerhouse behind the finishing operation and trading component of the stock.

They had previously used conventional tillage methods, broadcasting fertiliser on new pasture/crops. Participation in the group made them aware of the advantages of direct drilling. They purchased a combidrill that allows fertiliser to be precision-placed at the same time of drilling. This reduces the potential for fertiliser leaching/runoff, the number of passes across a paddock, saves on fuel, limits ground moisture being lost and limits soil compaction. All of these increase germination and crop yield and lessen the environmental impact compared to conventional methods such as ploughing.

It is also estimated this approach will result in savings to the business of \$3,631 annually as a result of a reduction in the amount of diammonium phosphate (DAP) required.

Group membership has also made them aware of the potential ways to offset their emissions by strategically planning poplar/willow poles to meet the forest definition in the Emissions Trading Scheme.

With the lift in gross farm revenue, projected, it is concluded that there will be an annual \$93,681 increase in Earnings Before Interest, Tax, Rent and Managerial Salary (EBITRm) with the business attributing 100 per cent of this gain to their participation in the group. The projected amount of Gross Farm Revenue will be dependent on the increased lamb survival to sale of 140 per cent, the number of ewe hoggets mated, and the amount and cost of the DAP applied at sowing. Assumptions are based on an additional 635 saleable lambs from a survival to sale of 140 per cent, an additional 75 hoggets lambs being born and sold for \$100/hd, and 150kg of DAP applied when direct drilling thirty hectares. Overall, this comprises \$160 per hectare net gain per year.



























# Action Group brings about business gains and goals for Tararua farm business

O Lo

Location: Tararua

Farm type: 760 effective hectares

Farm business goals: business planning, animal performance



#### Key measured changes



Increase in lamb survival to sale %



Increase in sheep revenue





60% of annual EBITRm increase attributed to involvement in their Action Group

A Tararua farming couple joined their Red Meat Profit Partnership Action Group in 2017 with the aim of improving their business planning.

They wanted to learn more about their business, its longterm resilience, how it compared to other businesses and how they could increase its performance.

Over the past three years, the learnings they have put into action have seen them improve ewes' body condition and lamb birthweights, dock more lambs and boost lamb survival to sale.

They have lifted gross farm revenue by over \$40,000, attributing 60 per cent of this to their involvement in the Action Group. They have also now set business goals, developed a formal business plan and identified further areas to develop their farm business.

This farming couple's 760-hectare property is a predominately winter-wet, summer-safe farming area with an annual rainfall of 1,500-1,800 mm.

However, with summers becoming increasingly drier and with approximately the majority of their land hill country, they were struggling to finish lambs on the hills with growth rates of 40-50 g/day and unpredictable seasons.

Opportunities identified through specialist speakers and peer-to-peer learning have included moving from a twelve-month to a six-month shearing policy. Using





the group as a 'sounding board' also helped give them confidence to further invest in their business where production and performance gains could be made. This has included building new covered yards to enable the pre-lamb shearing of ewes.

They have also purchased a semifinishing ex dairy run-off to support their farm operation, which offers more spring growth and a better ability to utilise crops for finishing.

Shearing changes have had a strong flow-on effect to animal health benefits. The first year of twice-yearly shearing was carried out in 2018-19. They will continue with this even with low wool prices because the benefits outweigh the costs of shearing twice a year. Although pregnancy scanning was back compared to the previous year's results, there were fourteen per cent more lambs at docking than in previous years.

This carried through to lamb survival to sale, where there were ten per cent more lambs than the previous year and seven per cent more than their average from 2015-2019. This increased their total sheep revenue per sheep stock unit (SSU) from an average of \$102/ SSU to \$158/SSU.

Through membership of the Action Group, they say they are now clear about where their business is heading, what development is necessary and that they feel accountable for their decisions they make. Their ongoing goal is to continue to increase their farm business productivity, profitability and to do this in a sustainable manner so their children can have the same opportunity to farm the land if they decide to.

The net difference in revenue and expenditure suggest an increase in annual Gross Farm Revenue of \$40,317 and an increase in operating expenses of \$4,590, giving a total annual benefit of \$35,727. The one-off cost of extending the existing covered yards would be covered by the net benefit in the first year.

The farmers attribute sixty per cent of this difference to the involvement in the Action Group, giving an annual benefit of \$21,436. This comprises \$28 per hectare net gain per annum.



























### Rangitikei farm business helps further tackle erosion – while lifting bottom line



Location: Rangitikei

Farm type: 312 effective hectares

Farm business goal: environment



#### Key measured changes



Increase in tree planting and cost

\$520/ha/p.a.



Carbon income over 35 years

\$2,405 p.a.\$7.50/ha/p.a.



50% of annual EBITRm increase attributed to involvement in their Action Group

Erosion is a major issue for a couple farming sheep and beef on a Rangitikei farm with extensive steep-sided slopes and moisture-retentive clay soil.

Becoming part of a Red Meat Profit Partnership Action Group focused on sustainable farming, has helped them to learn more about planting to stabilise their land and farm sustainably - and the potential subsidies and income streams from tree plantations, related to their individual property and farm plan.

They also found that the size of the group, with nine farm business members, meant everyone became comfortable with each other quickly and farmers were not afraid to ask questions and share their existing knowledge.

This has really driven the success of the group and helped those members take advantage of specialised speakers. Together, the members have helped to identify areas of opportunities and strengths within the area they all live and farm.

The slopes and challenging soil make up forty per cent of the couple's 312 effective hectare property. Moderate hills and poorly drained foot slopes make up a further forty per cent. The remaining land is divided between some elevated, slightly better-drained rolling hilltops and alluvial flats adjoining the streams on the property.

Every spring, their tracks require maintenance for access. Restricted access to areas on the farm due to slips over the tracks during lambing and calving poses both animal health risks and health and safety concerns.





As a result, they were keen to focus their work with the group on stability and establishing a more robust farming system that would best suit their land and climate to farm sustainably now and for the next generation. This included ensuring they had "right tree, right place, right purpose" and looking at the whole farming area collectively, including the various soil types, terrain, aspect, and erodibility and what has worked from previous generations planting.

They have been strategic about using trees to protect infrastructure, targeting the protection of tracks from slips. This has reduced time and money spent repairing and maintaining tracks as well as reducing animal health risks and health and safety concerns.

A major goal in joining the group, launched in 2018, was also to learn how other environmentally sustainable forms of income could be integrated within their current farming system and co-exist.

A vast variety of trees had already been planted on the farm, over a number of years, as a process of land stabilisation. However, the access to subject matter experts through the Action Group provided significant learnings about potential subsidies and how they could link existing trees together to meet the Emissions Trading Scheme (ETS) forest definition.

As well as the benefits that the trees provide to stock, in terms of shade and shelter, and to soil stabilisation, they found there were benefits that could contribute to the business's profitability. A key learning was how additional poplar pole planting could be used to develop areas to fit the requirements for the ETS.

They have identified the benefits of the ETS and planting trees for soil stabilisation as the 'bigger ticket' items for protecting their land and providing income to their bottom line. This includes identifying further areas that could be planted to join existing plantings and qualify areas for the ETS while proving positive for soil structure. This environmental development is now a work in progress. Using their Action Group learnings, they are developing a farming system which addresses their business values around sustainability, enhancing biodiversity and protecting their soils and landscape for future generations.

Projected income from the poplar poles being eligible for the ETS and the stabilisation of farm tracks is forecast to create a \$4,810 lift in annual Earnings Before Interest, Tax, Rent and Managerial Salary (EBITRm).

As they were already actively planting trees, they attribute about fifty per cent of this increase - \$2,405 - directly to their participation in the Action Group.

























# Action Group supports straightforward move towards regenerative principle



Location: Kawakawa, Northland

Farm type: 41 effective hectares

Farm business goals: managing soils, pasture management



#### Key measured change



Increase stocking rate

Having purchased a small farm to be run alongside their careers in other sectors, a Northland couple were keen to learn about and apply regenerative agriculture practices.

Becoming part of a Red Meat Profit Partnership (RMPP) Action Group focused on regenerative agriculture has enabled them to make significant changes. They are already seeing good results and aim to use the farm as a teaching space to share their learnings with others.

When they bought the property, it carried a small herd of 39 cattle in a conventional system. About half of the block is prone to flooding in wetter months. Having lived and worked abroad for long periods, they had seen principles of regenerative agriculture being implemented. The benefits to improving soil health and producing a premium product with fewer inputs



Developed land through grazing management

resonated strongly with them and they saw benefit in applying that approach back in New Zealand. Their goal, from the outset, was to create a farm that was sustainable and managed in a way that optimised soil and animal health. Being low-cost and simple were also key requirements.

They joined their Action Group, which has a focus on holistic soil management, in 2019. They were keen to understand the key drivers behind building soil health and to learn about observational tools and testing methods that can be employed, enabling the understanding of the health of their soil.

They also wanted to learn the fundamentals of mixed pasture systems in a New Zealand context, including potential plant mixes suitable to the Northland region which is traditionally Kikuyu-dominant.





Through the group, they have had the opportunity to engage with and learn from many subject matter experts in the small group setting. They have also joined group visits to other members' farms and hosted a visit to their farm.

The group has provided support and the opportunity to learn from and share ideas with like-minded farmers and experts. Some of the key focuses of their group days have been regenerative grazing principles, soil health and science and dung beetles. Learnings from each of the group events have been implemented into their own farm system. These activities and the group engagement has significantly supported their move towards regenerative agriculture practices and implementing regenerative grazing principles.

Changes they have made included major soil and pasture management measures. They have implemented rotational grazing, minimised the time mobs spend on soil, to reduce soil damage, introduced plant species diversity to pastures and incorporated dung beetles to the system to improve soil biodiversity.

They have introduced rotational grazing, improved feed quality and quantity, allocation and budgeting and improved pasture utilisation.

They have developed three hectares of their river flats through the sowing of diverse pasture species, developed a further ten hectares through grazing management and reduced fertiliser, animal health and

other inputs, and implemented regenerative grazing principles. They cite the most beneficial change to their farm system as coming through implementing rotational grazing systems.

They have a strong community focus and as well as retiring land by the river for the public to access, they are setting up a space where they can pass on their learnings and hold seminars.

While they are still in the 'rapid learning phase,' with the support of their Action Group, they have found embedding regenerative principles straightforward. A number of the benefits from dung beetles, improved soil structure and filtration and diverse pastures will take some time to reach their full potential. However, they are already seeing other benefits including the further ten hectares in regenerative grazing. These approaches allowed all of the farm's stock to be carried through the 2020 Northland drought. They are also seeing positive results in the areas that have been sown in diverse species

The cost of running the farm is decreasing with lower inputs of fertiliser through improved nutrient cycling, and reductions in traditional animal health inputs through the incorporation of homeopathic treatments. They are now looking forward to continuing their learning and sharing process with their Action Group, with members planning to continue to operate the group past the conclusion of the formal RMPP programme.

























### **Action Group helps Canterbury** farmers lift ewe flock performance



**Location: Canterbury** 

Farm type: 446 effective hectares

Farm business goal: animal performance



#### Key modelled changes

^\$12,100 p.a. benefit





Increased animal health spend

\$10 to \$32,000 p.a.



Regular ewe body condition scoring and monitoring

\$35,280 p.a. \$79/ha/p.a.



80% of annual EBITRm increase attributed involvement in their **Action Group** 

Increasing lamb weaning weights, having more lambs born on farm and improving management processes were goals for a Canterbury sheep and beef farming couple when they joined their Red Meat Profit Partnership (RMPP) Action Group.

Through joining the group in 2018, they have gained confidence around decision-making and implementing change on-farm. They have also implemented a reinvigorated animal health programme. Early indications are that the changes they have put in place are paying dividends, with improved lamb growth and weaner growth rates.

The 446 effective hectare farm covers two blocks of flat and rolling country and the farmers grow a number of feed crops, including rape, winter feed oats and barley, to use as a supplement for breeding ewes.

They cite specialist speakers, visiting other farms and the small group format – which makes it easier to ask questions and have in-depth discussions – as key benefits of membership and say it has been a key catalyst for them to make several changes on farm. They found the peer-to-peer learning, with very experienced farmers with similar properties in the group, of great value.

Through working with their group, they identified the need for new approaches to their animal health plan as well as opportunities for improving their ewe flock performance, particularly through focusing on ewe body condition score at mating and lambing, monitoring of live weight and better feed allocation.





After discussions with fellow group members and other farmers, the couple also took the decision to change their vet practice to one they felt would be more proactive and bring new knowledge and technology to add value to their business.

They have found this very positive with the new vet helping to develop a live animal health (AH) plan and providing various recommendations around how they can tweak animal health on-farm. They now have monthly contact with their vet, who has also been back to re-evaluate the AH plan.

The plan is now scheduled into weekly tasks, including ordering products and recording animal health treatments - ensuring timely treatments.

Fellow group members also recommended they scan their cows to improve management around calving. They have implemented this with the new vet and found "this has been monumentally better for managing our calving." They can now ration and save feed in late pregnancy by feeding cows based on calving date. This has also improved labour efficiency and calf survival as the focus can be on the mobs that are calving.

The new vet also suggested monitoring of the major trace elements affecting sheep and cattle, including selenium and B12 for sheep and selenium and copper for cattle. A plan was also implemented to cover key abortion vaccinations for sheep and protection against clostridial disease.

While these are still early days for the new regime, weaner growth rates have improved, which the farmers attribute to better management of the cows and focusing on trace elements. Cow scanning was excellent in 2019 with 98% in-calf.

Performance of the farm's Perendale/Romney cross ewe flock has been below average for the region. Prior to joining the group, the business had no real policy on managing tail-end ewes – a key attribute of high performing sheep farms. They were focusing on allocating feed to trade lambs through the autumn, purchasing trade lambs, and taking these through to August-October.

However, having attended an Action Group session on body scoring ewes and hearing about the value of body scoring on visits to other members' farms, they made the decision to take fewer trade lambs through the autumn and to protect their capital stock and manage tail-end ewes.

In conjunction with a new vet, they have implemented regular ewe body scoring and weighing younger stock to make sure they hit target weights. They are now drafting off lighter ewes below BCS 3 and preferentially feeding these while only feeding the better condition ewes' maintenance. This is a much more efficient use of feed. May 2020 was the first year for some time that their ewe lambs have been up to weight (45kg) for mating.

Visits to fellow group members' farms also emphasised the importance the impact ewe body scoring pre-lamb has on colostrum production and milk yield and resulting lamb weaning weights. The couple have now made this a big focus. This has helped them work towards increasing the amount of lambs killed prime off mum (POM) to thirty per cent. In 2019, they killed 128 lambs POM and in 2020 258 lambs POM.

As a result of better weaning weights, ewe lambs were heavier at 5 May, which opens the potential for mating ewe lambs and deriving additional income in the future. This also results in heavier two tooths with well grown frames that would scan similar to MA ewes and improve the lifetime performance of the flock

The business's potential improvement in Earnings Before Interest, Tax, Rent and Managerial Salaries (EBITRm) are estimated at \$44,100 per annum. The couple attribute at least 80% (\$35,280) of this annual EBITRm gain to their participation in the Action Group.

























## Southland farmers tap into collective support to drive

### regenerative farming programme



Location: Southland

Farm type: 510 effective hectares

Farm business goals: pasture management, managing our soils



#### Key measured changes



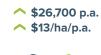
Increase in cattle ratio



Change to type of fertiliser/lime



Decrease in expenditure





30% of annual EBITRm increase attributed to involvement in their Action Group

A Southland couple are successfully transitioning towards a regenerative farming focus with strong support from their Red Meat Profit Partnership Action (RMPP) Group.

Having been 'philosophically' moving towards a more sustainable farm business practice for some time, the learnings and support gained from the group has encouraged them in their drive to progress significant change.

While adapting grazing management under a sheepdominant system has been challenging, they are already seeing rewards through improvements in resilience and stock health along with reduced input costs.

The couple have been farming their property for a number of years, having taken it over from a family member who had been an early adopter of strong conservation approaches, carrying out much planting for soil conservation and riparian protection through the 1980s.

Having continued with this philosophy and carried out a number of enhancements, they were keen to move towards an even more sustainable and resilient business approach, including reduced chemical input.

They joined the RMPP Regenerative Agriculture Action Group in 2018. Their objective for joining was to tap into collective support for learning about regenerative agriculture, be in contact with more people who were trying different techniques, to learn more quickly, and to participate in workshops and seminars with subject matter experts. They say the group has been successful for them on all these counts.





They also wanted to build knowledge around the economics of regenerative principles and establish if these were financially-sound ideas that would allow for a reduction in costs and work stress and a lift in profit. They wanted to build knowledge to help them succeed in establishing multi-species pasture that last the distance. They also wanted to understand relationships between multi-species pasture and soil health and learn about observational tools and testing methods to help them better understand soil function.

They have found the group dynamic very supportive, being able to work with a familiar group of people with shared philosophies and similar goals, to share experiences, support one another, hold each other accountable and encourage action.

Their most significant challenge has been to develop grazing management techniques under a sheep-dominant regime, which meets the Regenerative Agriculture criteria, as well as meeting stock performance and revenue expectations.

However, they have already made significant progress on their objectives of developing a farming system with management of pasture, finances, the environment and healthier soils.

They have moved to long grass farming following regenerative grazing principles, eliminated acid fertiliser – moving to a fish-based product – and minimized use of nitrogen. They have brought a small number of Wiltshire sheep to complement the existing Perendale genetics and are considering transitioning to a full Wiltshire breed in the future. They have also introduced multi-species pasture and winter crops, and multi-species grazing mobs.

It has been a strong learning curve. Each farm is different in terms of its pasture growth pattern, topography and aspect, and local climate means that soil, stock and pasture management systems need to be adapted for that particular environment.

The long-grass grazing system has grown more feed and rotating ewes and lambs and other stock in this system has enhanced growth rates. The challenge is to maintain pasture quality through late spring and not compromise lamb weaning weights.

Introducing multi-species winter crops that re-seed in the spring, and through leaving behind poor-quality rank pasture when grazing, has meant sediment and nutrient loss from these paddocks is greatly reduced.

They are also planning to increase their cattle ratio from around 27% to 40% - because cattle are easier to manage under a regenerative agriculture regime.

Overall, the forecast financial benefits for the farm business is an annual increase in gross farm revenue per annum of \$11,000, and decrease in operating expenditure of \$79,600, giving a total difference of \$90,600. One additional interest cost on the increased cattle numbers is taken into account, there is a projected net difference of \$89,000. The couple attribute thirty per cent of this to their membership of their Action Group, giving an annual benefit of \$26,700 - or \$13/ha/p.a.

It is expected to be at least another two years before their regenerative farming system is stabilised and the full benefits are recognised. A major part of the forecast savings is expected to come from reduced inputs including lower weed and pest spraying costs and a move away from conventional fertilisers.

























### **Canterbury farm business** lifts weaning weights due to **Action Group learnings**



**Location: Canterbury** 

Farm type: 470 effective hectares breeding, finishing, mixed copping and dairy support

Farm business goals: feed management, pasture management, animal performance



#### Key predicted changes







+3 kg lift lamb weaning weight : +3 kg lift lamb weaning weight : +3 kg lift lamb weaning weight : 50% of annual EBITRm increase



attributed to involvement in their Action Group

Through membership of their Red Meat Profit Partnership Action Group, a Canterbury couple identified a major opportunity to increase lamb weaning weights within their sheep and beef business.

They are now anticipating lifting gross farm revenue by \$42,000 annually - and say at least fifty per cent of the benefits they are seeing are due to being part of their Action Group.

This couple farm a 470 effective hectare breeding and finishing farm with mixed cropping and dairy support. Just under half of the effective land is under irrigation.

They stock 3,300 mixed age and two-tooth ewes. Lambs are weaned before Christmas at around 85 days of age, and all lambs are finished post-weaning. They purchase 100-145 dairy cross calves, killing as two year-olds and

graze 285 mixed age cows. They graze about 340 dairy calves, plus 1,200 dairy cows in winter. Fodder beet and kale are grown and sold standing for grazing dairy cows in winter.

They joined the group in 2018 and set themselves a number of objectives, including improving pasture management and matching pasture species to meet the feed requirements of the right class of stock for the best conversion efficiency of feed to end product.

They also wanted to increase lamb weaning weights to produce a greater yield of lamb weaned per hectare. They aimed to improve the management of the ewe flock at key times during the season, to influence lamb weaning weight and to understand the impact of ewe body condition score (BCS) at pre-lamb and implementing more formal BCS practices.





Through the group, they attended sessions with many subject matter experts as well as visiting fellow members' farms and hosting group members at their farm.

An Action Group session on ewe body condition scoring at lambing, with StockCare, proved a strong influence. The group also visited a high performance sheep operation where a further way to improve lamb weight weights was shown through the use of better high-quality forages for lactating ewes.

Group members were able to see first-hand how these alternative forages were being implemented in a farming system which was aiming to improve lamb weaning weights and the number of lambs killed prime off mum.

Through the learnings gained, they identified a significant opportunity to increase lamb weaning weights. Their two key areas of focus for this was through increased red clover grown in the farm system and the impact ewe body condition score pre-lamb has on resulting lamb weaning weights.

The farming couple had already been interested in red clover, with 14 hectares planted under irrigation. However, they decided to extend this, planting a further 3.73 hectares at the end of 2018, 17.39 hectares more in autumn 2019 and are planning to plant a further 3.82 hectares bringing the total to 25 hectares under irrigation.

They have primarily used the red clover for feeding to lactating ewes and finishing lambs post-weaning.

In 2019, they lambed 344 mixed age single ewes on conventional pasture, near to the red clover crop. From lambing onwards, the lactating ewes and lambs were then shifted onto the 21 hectares of new red clover and rotationally grazed. At 70-80 days on red clover, 335 lambs out of the 375 lambs born were killed prime off

mum at 19.8kg cold carcass weight (CCW). Even though these were single-born lambs, this was an impressive result with close to ninety per cent of lambs off the farm at weaning.

Post-weaning, they have used the 21 hectares of red clover crop to finish lambs. Approximately, 1,350 lambs were killed as at, 5 March 2020 with weights averaging 18 to 19kg CCW. They estimate that on the 21 hectares they will kill 100 lambs per hectare (2,100 total) until the last graze in May.

In spring 2020, they plan to lamb twin ewes on part of the red clover, with a stocking rate of about 12-14 ewes per hectare. Other ewes will lamb on conventional pasture paddocks. One week to ten days after lambing, they will shed the lactating ewes and lambs from pasture onto the red clover. The target is 18-20 twin ewes and lambs per hectare on the red clover paddocks.

They are not currently body condition scoring ewes, but they are drafting off those that are lighter than they should be – such as tail end ewes - and managing them separately. Going forward, they plan to look at body condition scoring ewes and to pay particular attention to minimising ewes below BCS 3 leading into lambing.

The performance of their flock is well above average for the region with lambing survival to sale of 150%.

The couple say that identifying the opportunities through the group, strengthening that through the subject matter input and high-performing farm visit, has given them the confidence to make decisions and implement these changes on farm. They say that seeing other farmers' 'hard data' underlined the benefits they were seeing in their system.

Farmax modelling of the gains has identified the anticipated lift in Gross Farm Revenue of approximately \$42,000 annually once the regular ewe condition scoring and red clover system is fully implemented. They attribute at least fifty per cent of this to their participation in their Action Group.

























## Southland farm business progressing to long-term viability



**Location: Southland** 

Farm type: 710 effective hectares

Farm business goals: business planning, financial management



#### Key measured changes

23%

From 0.25 to target 0.20



Interest + Rent: Gross Farm Revenue Ratio 9% 128% to target 140%

Lamb survival to sale %

33% 3.3% to target 4.4%

Return on Capital

^ \$31,300 p.a. ^ \$48/ha/p.a.



30% of annual EBITRm increase attributed to involvement in their Action Group

Purchasing a second farm was a driving factor that encouraged a Southland farming couple to join a Red Meat Profit Partnership Action Group with a strong business focus.

Their goal was to improve the viability of their farm business through targeting business KPIs, identifying opportunities to make productivity gains and to implement a strategic business plan.

They are now using benchmarking to measure performance, setting goals to improve their business KPIs and have identified improved lamb survival through to sale as having great productivity potential. Within 18-months of joining the group, their business is already showing significant improvement.

The two farms are run as one unit, comprising a total of 710 effective hectares. One has been in the family for generations. The other has been leased since 2012 and was purchased in 2017. The couple are highly focused on the productivity and profitability of their farming business. Having purchased the second farm unit, the ratio of Interest and Rent to Gross Farm Revenue was initially around 0.26. This was not viable in the medium-term and was the motivating factor in looking to improve viability. Joining an Action Group with a strong productivity and profitability focus was one of the strategies set out to achieve this.

The Action Group's primary objective was to 'optimise profitability, return on investment, and create a resilient business'. Each business was expected to use the group setting to develop a strategic business plan. Goals were also set to improve Earnings Before Interest, Tax, Rent and Managerial Salaries (EBITRm) and lifting EBITRm per kg of dry matter.





Group events with subject matter experts have included a workshop on strategic business planning, KPI setting and historical financial reviews and presenting business plans/review sessions. They have undertaken farm policy analysis using Farmax modelling and examined cropping options and their cost-benefit analysis. They have also participated in workshops on agronomy and fertility, business structure and governance and environmental management.

This couple have been actively involved in all the group's activities and it has helped them to focus on benchmarking their business across production, income and operating expenditure KPIs.

A large focus of the business plan they have developed came from closely analysing past production and profitability benchmarks and setting goals aligned with those benchmarks. This has, in turn, helped them to understand the strengths and weaknesses of the two properties, which are some kilometres apart. This has assisted them in setting up stock policies and resource allocation to achieve the best utilisation of feed and profit outcomes.

Benchmarking also led to them identifying that the biggest productivity opportunity was in improving lamb survival to sale (S to S) percentage - though lifting their average S to S from 128% to 140%+).

Through consultation with their fellow Action Group members, they identified the importance of setting targets for hogget growth through to two-tooth stage. This includes monitoring this progress closely and more intensive monitoring of body condition score (BCS) in mature ewes – also reducing the death rate in ewes at lambing.

Half of their targeted gains in EBITRm will come from improvement in sheep production in Gross Farm Revenue. The rest will come from being more expedient in operating expenditure. The business is also making progressive savings in winter feed costs through better crop husbandry and feeding management. There has also been tight control over wage costs, fertiliser costs, repairs and maintenance, and administration.

The analysis instigated by the Action Group has charted the productivity gains and financial Key Performance Indicators (KPIs) necessary to achieve medium-term viability. It has also provided more objectivity and discipline which is now a strong feature of their business plan.

The couple cite the moral and technical support offered by the Action Group dynamic as key to the progress they have made. They also benefitted from the specialist skills and knowledge imparted by visiting subject matter experts as well as the peer-to-peer learning and accountability that came from being part of a small, wellengaged group.

While they were already highly motivated and aware and also working with other learning sources, they say the Action Group has been key to helping them to identify new management techniques that can be applied to achieve the outcomes they seek. In particular, they have gained practical inspiration from fellow group members who are already achieving these levels of production.

Forecasts suggest a potential net gain of \$104,000 in EBITRm. This will come primarily from an increase in sheep productivity, primarily in the number of lambs born. The couple attribute 30 per cent of the projected net gain to the influence of their Action Group. This represents an annual net profit gain of \$31,300 or \$48/ha per annually.

























# Action Group helps drive substantial development for Central Otago farm business

Location: Central Otago Farm type: 535 hectares

Farm business goals: business planning, financial management, feed management



#### Key measured changes















30% of annual EBITRm increase attributed to involvement in their Action Group

The disciplines gained from joining a Red Meat Profit Partnership (RMPP) Action Group have been instrumental in a substantial development programme for a Central Otago farm business.

This farming couple have now put measures in place which will enable them to increase their stock carrying capacity from 3,100 stock units (SU) to 4,300 SU by mid 2024.

The couple have been sub-leasing the two-block property, comprising 535 hectares, from family since 2016 and, also own a part share. The land comprises rolling-to-flat terrace country in a low rainfall area. Their

primary focuses are breeding ewes, finishing lambs and dairy beef, and also half-bred wool production. Prior to the current farmers taking over, the land had been leased out and was largely undeveloped, carrying predominantly native pasture.

A major focus of the development has been on replacing native pastures with lucerne to enable them to significantly increase stock units per hectare. To date, 57 hectares has been planted and there is scope to convert a further 200 hectares. This is being funded through a mix of borrowing and revenue and they are now working with a business advisor to prepare a detailed business plan for this programme. This will include close monitoring of critical KPIs, including Net Equity Growth, Ratio of Operating Expenses to Gross Farm Revenue (GFR), Interest and Rent relative to GFR,





and Interest Cover Ratio. They attribute thirty per cent of their forecast benefits directly to participation in the Action Group.

When the Action Group was launched in 2019, they were keen to join up, with the aim of focusing on increased productivity and profitability, and equity growth. This included increasing production through pasture renewal, while improving their farm practices and environmental footprint. They were keen to benefit from expertise and had already undertaken learning via the Agri-Women's Development Trust and the Future Focus programme.

Their Action Group has met regularly on different members' properties to explore ways to increase productivity and profitability. The members' businesses have been benchmarked against each other. Business plans were developed, with clearly-defined goals and objectives and there is a strong emphasis on measuring and reporting KPIs.

The couple cite the moral and technical support offered by the Action Group dynamic as one of the most valuable aspects – meeting with people of similar minds and objectives to share collective knowledge and ideas, seek out new information, translate that information into positive outcomes and encourage each other to adopt. Being part of the group encouraged them to benchmark their business across several KPIs, quantifying their progress. They also benefited from access to subject matter experts so that specialist skills and technical knowledge could be captured, assimilated, and applied to the members' businesses.

They also felt the small group environment fostered engagement that would not otherwise be possible. The objectives and workplan constructed by the group provided a vision for positive outcomes, while the milestones and cross-referencing between members provided a new level of accountability to their business.

This helped give them the confidence to accelerate the development of the property and to also focus more strongly on their succession plan, working towards their aim of buying the rest of the farm in the future.

The couple attribute thirty per cent of their forecast increase in EBITRm over five years to the knowledge and encouragement that they have gained from their Action Group. This will make the annual benefit from participation in the group \$12,800 per annum or \$23/ha/p.a. This does not include the increase in equity that may accrue.

























# Innovative legumes on hill country programme boosts sustainability and profitability

**Location: Southland** 

Farm type: 11,350 effective hectares, lowland downs, developed hill country and tussock country

Farm business goals: feed/pasture management, environment



#### Key measured changes





Increased lamb finishing capacity

^ \$1,050/ha



Better quality feed



Seed banking for regeneration





50% of annual EBITRm increase attributed to involvement in their Action Group

Being part of a Red Meat Profit Partnership Action Group focused on introducing legumes to hill country has seen a major Southland station drive innovative change.

The farming operation now has the potential to increase total net gain very significantly – and attributes at least fifty per cent of this to the information and support provided by their Action Group.

The very large breeding and finishing property comprises a mix of lowland downs, developed hill country and tussock country – in various stages of being converted to improve pasture. It carries a large number of ewes, ewe hoggets, breeding cows, including first calving heifers, and combined replacement and finishing cattle. The station normally finishes all of its lamb on crop and all of its surplus cattle. It also hosts sheep and beef studs.

Cold winters means the farm business relies heavily on winter feed crops of kale, swede and fodder beet as a feed supplement. In addition, around 600 hectares of turnips, brassica or Italian ryegrass may be grown on the high country as part of a development programme.

This development programme entails spraying out tussock and native weeds, a controlled burn, lime application, then a three-year programme whereby Italian ryegrass has been sown after the burn, followed by turnips in the second year, then kale in the third year, before sowing into permanent pasture, which has traditionally comprised ryegrass-dominant mixes with some white clover.

In recent years, a reduction in the stocking rate, exacerbated by a drought in 2018, and the environmental regulation associated with the Environment Southland land and water plan, have led



to the farm business reviewing its development and cropping programmes. Part of this review was to explore making greater use of legumes - both annual and permanent - in their finishing programme as well as in the high-country development programme.

To aid this process, farm management joined the Action Group with the specific objective of making greater use of legumes - both annual and permanent - in their finishing programme as well as in their high country development programme.

The Action Group was established in 2018 with the objective of exploring the greater use of annual and permanent clovers in Southland farming systems. The original objective was to learn about the establishment and management of legumes to try and get these successfully established on members' properties – to use as a vital source of feed in the shoulder of the season.

Over time, this also expanded to look at the contribution of specialist red and white clover forages in the Southland systems and the management required to optimise the performance of the species.

This farm business cites the access to subject matter experts in the small Action Group setting as an important influence on the progress they have made. Another valuable aspect has been the moral support and sharing of learnings and experience among group members, with farmers with common interests and objectives all sharing ideas, seeking out new information, translating that information into positive outcomes, encouraging each other to adopt and promoting accountability.

The business has gone on to reconfigure its development programme, substituting a kale crop with Persian subterranean clover, and establishing permanent clover-based pastures as opposed to conventional ryegrass-based pastures. The stock type and seasonality of grazing this high country has changed significantly. There is better use of the reliable growing season and it is more profitable without increasing animal numbers.

Traditionally, a pasture development programme of the kind employed at this business would entail feeding brassica crops to cattle through the winter on this high country, some of which is quite steep. This had given rise to concerns over soil and nutrient loss into adjacent waterways.

Substituting a kale crop with Persian subterranean clover and establishing permanent clover-based pastures as opposed to conventional ryegrass-based pastures has enabled significant changes to stock type and seasonality of grazing this high country.

The new feed programme provides higher protein and higher digestibility for lamb finishing. It reduces the risk of losing feed quality on northerly faces over summer, allowing mature stock to be deployed elsewhere on farm for feed control. It increases lamb finishing capability and less seed is required per hectare.

The timing of grazing can be shifted to the late spring, summer, autumn months and away from winter grazing. The has enabled a shift in focus on type of stock used, from wintering cattle to finishing lambs over the summer. This reconfiguration makes better use of the reliable growing season, but also allows the new development country to be profitably used, without increasing cattle numbers or winter cattle grazing on the high country.

This puts the development of this high country onto a more sustainable footing and improves the compliance profile of the business. Additionally, more revenue can be generated over the summer and autumn months through enhanced finishing capability, without having to increase the average winter stocking rate.

Overall, the changes to date, of approximately 400 hectares of north facing country that has been established in this alternative permanent pasture model, represents a potential total net gain to the business of \$440,000 annually. They attribute at least fifty per cent of this potential net gain to the information and support provided by their Action Group.























## King Country farming couple lift revenue and performance

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**Location: King Country** 

Farm type: 430 effective hectares hill country

Farm business goals: animal performance, business

planning, environment



#### Key measured changes





Lamb survival to sale



Cattle income (\$/cattle stock unit)





20% of annual EBITRm increase attributed to involvement in their Action Group

Becoming a member of a Red Meat Profit Partnership (RMPP) Action Group has helped a King Country farming couple in their drive to lift both revenue and their animal performance.

The couple, in partnership with parents, farm breeding and finishing stock on 430 effective hectares hill country. They joined their Action Group in 2018 and set themselves goals of building a sustainable farm business by lifting revenue, improving livestock performance and enhancing the environment.

They had both worked in the agriculture industry in New Zealand and overseas but had only begun 'hands on' farming in 2016.

Participating in the group introduced them to a number of new ideas, through exposure to the shared experience of fellow group members and to subject matter experts. This resulted in them being able to fast-track performance gains and achieve their goals.

Key influences include the group facilitator who is experienced in ewe body condition scoring (BCS) and the group spending a day with an expert also experienced with BCS.

The couple lifted their focus on BCS of ewes, began retaining replacements and made some tweaks to their annual health policy.





BCS was implemented at weaning, pre-tupping, scanning and following shearing. At each stage, they now separate ewes above and below BCS 3 and manage them accordingly, with those below BCS preferentially fed.

Since implementing this, they have seen a twelve per cent increase in lamb survival to sale. This resulted in a \$27 revenue lift per sheep stock unit between 2017/18 and 2018/19. They attribute this to better feed allocation based on the BCS process and targeted feeding to minimise any risk of tail-end.

Having previously purchased replacement ewes as two tooths, they have begun retaining more replacements and focusing on ensuring they are well grown out. The focus on BCS has enabled them to control the quality of the ewes entering their flock and select genetics that support their goals to improve lambing percentage. Their goal in changing their ram breed is to underpin the future performance of their flock.

An Action Group day on animal health treatments has also seen them add Toxvax and this year Campyvax4, to their sheep health programme and gain a better understanding of internal parasites and effective drench regimes.

As part of their work with the Action Group, they also completed a farm environment plan. They required any environment work undertaken to have financial benefits. When they took over the block, it was largely being grazed by sheep and they wanted to develop areas better suited for carrying cattle. One of the key focuses was to fence off and plant the river running through

the property with natives. They also developed areas adjacent to the river and improved the subdivision and drainage which improved pasture utilisation, allowing higher value trade stock to be carried. One area that had traditionally stocked conservative ewe numbers was moved to carrying 2.7 yearling cattle per hectare. They have continued to develop the block and their cattle system.

They are purchasing steers as weaners and they are taken through to finishing. Bulls are brought in as 100kg calves and finish at 18 months. Cattle areas are selected based on soil and type and contour to minimize environmental impacts and lighter stock are carried over winter, resulting in less soil damage.

Overall, they have seen a 12 per cent increase in lambing results, \$339 per hectare and \$164 per hectare lift in Earnings Before Interest, Tax, Rent and Managerial Salary (EBITRm). They attribute 20 per cent of this net gain to their involvement in the Action Group – equating to \$14,125 annually or \$32.80/ha.

Being part of the group also led to the couple recording more information, leading to regular goal-setting. Goal setting has been one of the biggest benefits of the group as the ability to measure actions against targets or short-term goals has led to further improvements in the farm business, as well as knowing where they want to get to and how to get there. They now use Cash Manager for their financial accounts which has made it easier to budget and understand the business's financial position. One of their Action Group days also focused on succession planning. This lead to the couple sitting down with their parents who own the property, and developing a succession plan to work towards purchasing the block, stock and plant in full.





















