



Photo by Sonja van Schalkwyk

WORLDWIDE  *fruit*

Regenerative Farming in the Koue Bokkeveld, South Africa

Case Study 1

2025

Context

Agriculture stands at the forefront of some of the world's most pressing challenges, including soil degradation, biodiversity loss, water scarcity, and extreme weather events. Recognising the critical role that the agricultural sector plays in both contributing to and addressing these issues, **Worldwide Fruit Limited** (WFL) has committed to a holistic and collaborative approach to sustainability. Their journey is not just about meeting industry expectations—it is about proactively shaping a more resilient, regenerative, and responsible supply chain.

Since 2019, WFL has worked closely with **Blue North Sustainability**, a consultancy specialising in agricultural sustainability, to support farmers in implementing practical, long-term solutions. This partnership has shifted WFL's approach from a prescriptive "top-down" model to a "bottom-up" strategy that genuinely empowers farmers. By prioritising farmer-led initiatives, WFL ensures that sustainability efforts are not only effective but also deeply rooted in the realities of agricultural operations.

Through this ongoing collaboration, WFL has driven key initiatives such as water stewardship projects, the large-scale roll-out of the **SHERPA** online sustainability management system, and **carbon footprint** reduction programs. These efforts have equipped farmers with the tools, knowledge, and support needed to navigate the complexities of modern agriculture while reducing environmental impact.

These case studies highlight WFL's commitment to sustainability by showcasing the progress, challenges, and opportunities within its supply chain. They capture how farmers and suppliers are adapting to climate change, reducing carbon footprints, and strengthening livelihoods. A key theme across these stories is the mindset shift required for sustainable and regenerative practices to take root. Farmers are moving beyond conventional approaches, embracing new ways of thinking, and finding innovative solutions to long-term resilience.

These case studies serve several purposes:

- **Demonstrating Progress:** Showcasing real-world examples of how sustainability efforts translate into action and impact.
- **Encouraging Knowledge Sharing:** Providing a platform for farmers and suppliers to exchange insights, challenges, and lessons learned.
- **Strengthening the Business Case for Sustainability:** Highlighting the tangible benefits of regenerative practices, from improved soil health to economic resilience.
- **Aligning with Global Sustainability Goals:** Supporting WFL's commitments under the Courtauld Commitment 2030 and other key sustainability frameworks.

By documenting and sharing these stories, WFL and Blue North aim to inspire meaningful change across the agricultural sector—one rooted in collaboration, innovation, and farmer empowerment.

This case study highlights regenerative farming in the Koue Bokkeveld region of the Western Cape, South Africa. WFL suppliers, De Keur and Zonnehaven, have embraced practices that enhance soil health, improve yields, reduce carbon emissions, and strengthen climate resilience. The study explores the mindset shifts, motivations, lessons learned, and benefits experienced by these farmers. Beyond individual farms, their journey illustrates the broader impact of regenerative agriculture and the critical role farmers play as stewards of the land.

Case studies in the 2025 series:

- Case Study 1: Regenerative Farming in the Koue Bokkeveld, South Africa



Report compiled by Malissa Murphy
Blue North Sustainability

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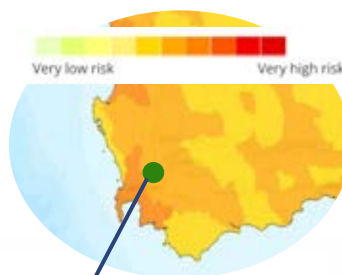
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1.1. ZONNEHAVEN'S TRANSFORMATION: FROM SURVIVAL TO STEWARDSHIP

Howbill's shift to regenerative farming began during the 2007–2008 drought and now **covers all 500 ha**. Doornkraal is steadily expanding across 600 ha, with both farms restoring soils, conserving water, and building resilience for the future.



Zonnehaven & De Keur exports over **2 million cartons** of pome fruit to the UK each year.



Koue Bokkeveld

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1.2. DE KEUR'S JOURNEY: SCIENCE, FAITH & TRANSFORMATION

De Keur's shift to regenerative farming was driven by rising costs, discomfort with chemical dependency, and inspiration from other growers' success. Now in their **fifth season with 149 ha converted** under Soil Food Web principles, they continue to face challenges but are seeing clear progress in soil health and fruit quality.



"**Dirt to Soil**" & "**What Your Food Ate**" have inspired the growers.

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CHAPTER 2: HOW THEY ARE DOING IT

2.1. ZONNEHAVEN'S GROWERS:

BUILDING SOIL & STEWARDING WATER Howbill and Doornkraal are embracing regenerative practices—composting, mulching, no-till farming, cover crops, and livestock integration—to restore soils, cut inputs, and conserve water. They have **reduced water use by around 25%**, improved soil carbon and organic matter, lowered reliance on chemicals, and maintained strong yields, while also seeing wildlife return to their orchards, including the remarkable sight of a leopard with cubs.



Doornkraal Agri tracks biodiversity using iNaturalist.

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2.2. DE KEUR: FARMING WITH FAITH & SCIENCE

De Keur's regenerative journey, guided by **Soil Food Web principles**, began with bold steps like eliminating synthetic fertilisers and introducing diverse cover crops, on-farm composting, and livestock integration. These practices have boosted soil health, water retention, and biodiversity, with earthworms, fungi, and wildlife returning to orchards once dependent on chemicals. Though upfront costs are high, early signs of improved fruit quality give confidence that regenerative farming will prove more cost-effective and resilient in the long run.

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CHAPTER 3. CONCLUSION & FUTURE OUTLOOK

Regenerative farming systems that restore soils, conserve water, and build resilience, demands both scientific understanding and a new philosophy of stewardship. De Keur and Zonnehaven's growers are pursuing bold goals - **from full regenerative transition to carbon neutrality** - while sharing knowledge and strengthening partnerships with WFL to align grower practices with consumer expectations. Their stories show that **farming with nature, rather than against it**, offers a pathway to long-term sustainability and healthier land for future generations.

Chapter 1: The Growers and Their Sustainability Journey

Setting the Scene: The Koue Bokkeveld

The Koue Bokkeveld, a high-altitude plateau north of Ceres in South Africa's Western Cape, stands as one of the country's premier deciduous fruit-growing regions. At approximately 1,100 metres above sea level, this unique landscape supplies Worldwide Fruit Limited (WFL) with premium pome fruit for export to the UK market.

The region's altitude creates exceptional conditions for fruit production. Cold winters provide reliable chilling hours essential for fruit development, whilst the elevation enhances fruit colour and quality.

Yet this competitive advantage comes with significant challenges. Rainfall records dating back to 1937 reveal an alarming trend: climate extremes are intensifying. The region now faces prolonged droughts, unusually wet springs, and increasingly unpredictable weather patterns. "Every year is different, and the extremes are getting worse," observes Charl du Toit, Managing Director of De Keur Estates. In the Koue Bokkeveld, hail strikes roughly every second year, and recent flooding and wind damage highlight the need for resilient systems.

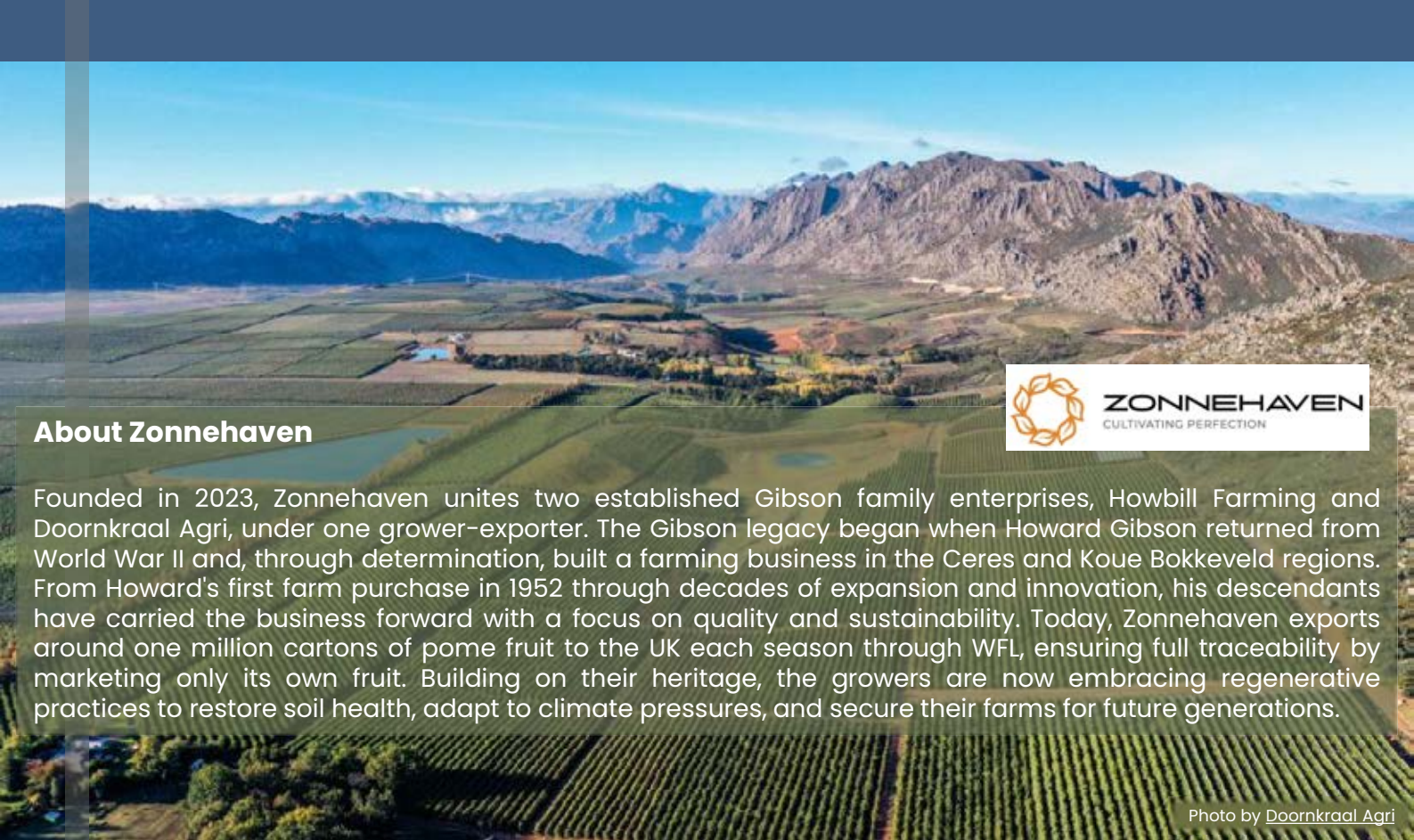
Alongside these climate pressures, rising input costs and shrinking profit margins have made the search for sustainable alternatives essential for survival. This convergence of environmental and economic pressures has catalysed a transformation. Two of WFL's leading suppliers, De Keur and Zonnehaven (consisting of Howbill Farming and Doornkraal Agri), are pioneering regenerative farming practices to rebuild soil health, conserve water, and strengthen resilience.



About De Keur

Founded in 1934 by Tippiie du Toit in the Koue Bokkeveld, De Keur has grown into a multi-generational family business with farms in the Ceres and Wolseley regions. Guided by Tippiie's values of respect, quality, and good farming practices, the business expanded steadily, adding new farms and establishing modern packing facilities. Today, De Keur produces apples, pears, nectarines, peaches, and onions, exporting 1.2 to 1.7 million cartons of apples and pears annually, with the UK as a key market. Strongly focused on technology and science, De Keur applies precision irrigation, soil and leaf analysis, and integrated pest management to improve productivity whilst protecting the environment. With the next generation now in leadership roles, De Keur continues building on its legacy whilst adopting regenerative practices to ensure long-term sustainability.

Photo by De Keur



About Zonnehaven

Founded in 2023, Zonnehaven unites two established Gibson family enterprises, Howbill Farming and Doornkraal Agri, under one grower-exporter. The Gibson legacy began when Howard Gibson returned from World War II and, through determination, built a farming business in the Ceres and Koue Bokkeveld regions. From Howard's first farm purchase in 1952 through decades of expansion and innovation, his descendants have carried the business forward with a focus on quality and sustainability. Today, Zonnehaven exports around one million cartons of pome fruit to the UK each season through WFL, ensuring full traceability by marketing only its own fruit. Building on their heritage, the growers are now embracing regenerative practices to restore soil health, adapt to climate pressures, and secure their farms for future generations.

Photo by Doornkraal Agri

1.1. Zonnehaven's Transformation: From Survival to Stewardship

For Zonnehaven's grower, Howbill, the journey toward regenerative farming emerged from both necessity and vision. Ernst van Dyk, Estate Manager at Howbill's Parys, Die Hoek and EDM farms, articulates the crisis they faced: "Decades of conventional agriculture caused the soil to degrade - the organic matter declined, soil health declined, and we became more and more dependent on inorganic fertiliser. It became clear to us that our soil, the heart of our farming, urgently needed attention."

Financial pressures intensified this realisation. Rising input costs and global market volatility have squeezed margins to breaking point. "Cost pressure in fruit farming is forcing us to get higher yields and pack more fruit, otherwise we won't be able to survive," Ernst explains. Ten to fifteen years ago, 100 tonnes per hectare was exceptional; today, break-even is closer to 75-80 tonnes per hectare. This economic reality has driven orchard redesign toward higher tree densities, though quality remains paramount: "It's not just about how much we harvest, but about ensuring the fruit meets the highest quality standards for export."

The Drought That Changed Everything

The 2007-2008 drought proved a watershed moment for Howbill Farming. Faced with severely reduced water allocations, the farm innovated out of desperation. Waste wood from a pallet factory was chipped and spread as mulch to conserve precious moisture. "The whole regenerative thing started out from the mulch to conserve water. After two years we realised it was a winning recipe," Ernst recalls.

The transformation beneath their feet was remarkable. "We irrigated with the little water we had and realised we were making it through. Then we started digging in the soil and saw roots coming up into the topsoil, fungi growing between the roots, and even mushrooms in the orchards." What began as crisis management evolved into ecological revelation.

The transition demanded courage and persistence. "The transition period where you need to maintain production while changing fundamental practices was the most challenging part of the journey. It's like changing the tyres while driving! It costs more at the beginning and you also lack confidence." Yet through perseverance and learning from both successes and what Ernst calls "school fees" (costly mistakes), conviction grew. **Today, all 500 hectares of Howbill operate under regenerative agriculture.**

Market alignment has reinforced this commitment. "It is important for Howbill that Worldwide Fruit, who buys our fruit, drives their buyers and consumers to choose produce from sustainable, responsible farming. That is another incentive – to ensure they buy from us, and not from a neighbour using irresponsible practices."

"It became clear to us that our soil, the heart of our farming, urgently needed attention." – Ernst van Dyk (Howbill)



Scan to read Howbill's
Carbon Hero story

Photo by Malissa Murphy

For Zonnehaven's growers, regenerative farming doesn't mean abandoning all conventional inputs yet. Apple and pear orchards, as perennial systems, require careful nutrient management. Ernst explains their pragmatic approach: "A total principle of regenerative agriculture where you say no fertiliser application is not viable for us yet. We believe it's about balance - good tons, good fruit packed, and best practices in terms of regenerative agriculture and sustainable farming."

Initially focused on soil health and water conservation, their understanding has evolved. "To be honest, carbon footprint was not our primary focus - we were more concerned about soil health and water conservation. But as we started to learn more, we realised that carbon sequestration is a natural product of healthy soil management, and that became important to our sustainability story."



Photo by Malissa Murphy

Scan to read Doornkraal Agri's Carbon Hero story

Doornkraal Agri's Commitment to Responsibility

While Howbill has fully transitioned, Doornkraal Agri farms are at earlier stages, gradually expanding regenerative practices across 600 hectares. Their motivation stems from responsibility rather than external pressure. "The switch to regenerative agriculture is not because there is pressure that you have to do it, but because the farmers know they have to - it is the responsible and sustainable way to go."

Despite setbacks including high interest rates, export disruptions from the Ukraine war, and devastating hail losses (50% of yield in 2023), the direction remains clear. "The fantastic thing about having compost on the orchards is that it helps the trees better handle stress conditions."

Knowledge-sharing between Howbill and Doornkraal has been crucial. As Zonnehaven's sole shareholders, they trade notes and reading lists; joint discussions of [Dirt to Soil](#) and [What Your Food Ate](#) deepened their grasp of regenerative principles and a systems view centred on soil biology, diversity, and minimal disturbance. Neighbouring farmers now visit Howbill to learn. "It is nice to see mindshifts taking place," Ernst notes, though South African-specific guidance remains limited.

Ultimately, their motivation transcends economics: "The outcome of the goal that we want to reach is to make sure there is still a future for our children and grandchildren on the farm - by being sustainable."

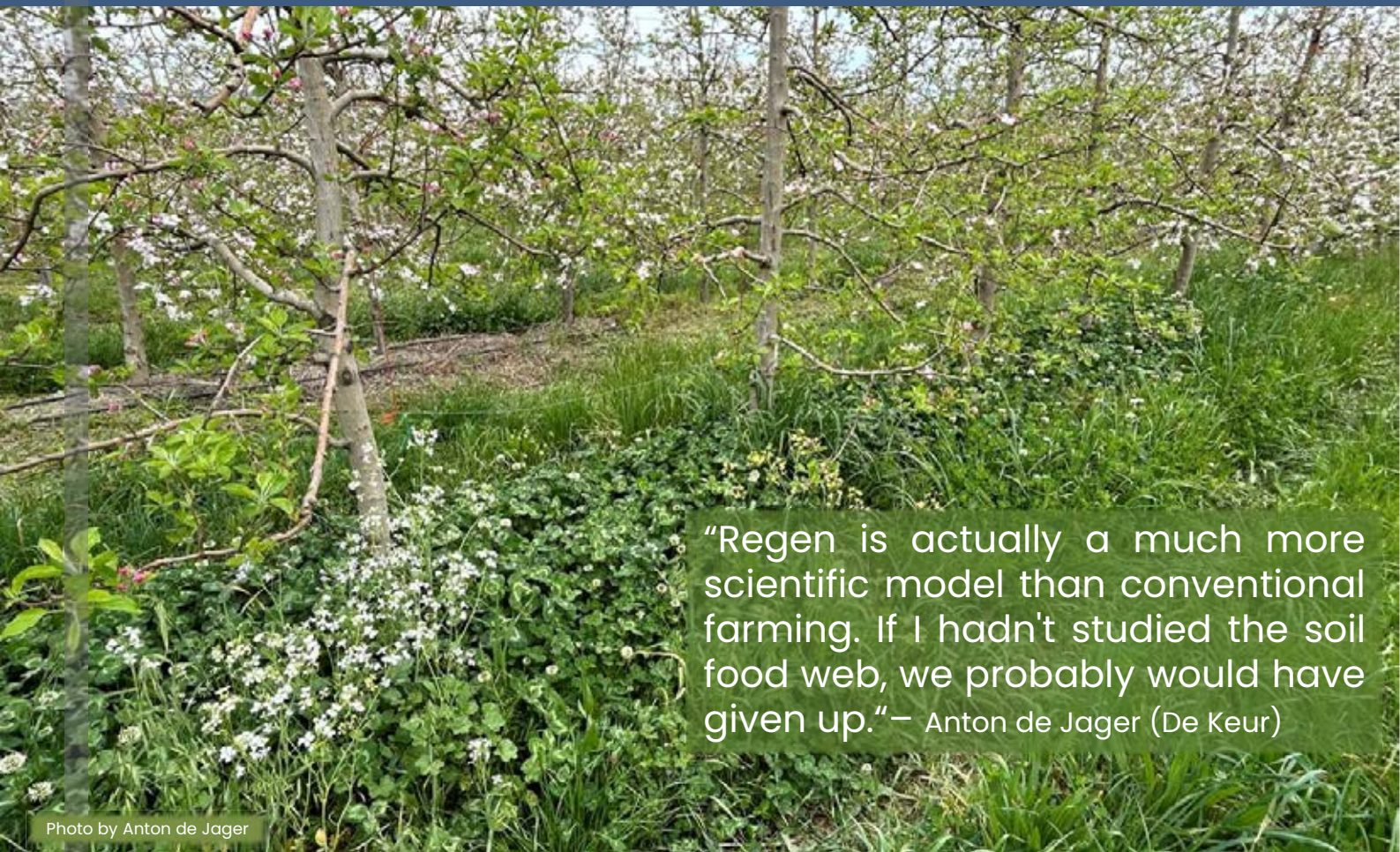


Photo by Anton de Jager

“Regen is actually a much more scientific model than conventional farming. If I hadn't studied the soil food web, we probably would have given up.”— Anton de Jager (De Keur)

1. 2. De Keur's Journey: Science, Faith, and Transformation

At De Keur, the path to regenerative farming emerged from converging pressures and deep personal convictions. While the 2017 drought exposed orchard vulnerability under water scarcity, it wasn't the sole catalyst. "The drought wasn't the main reason why we started with regenerative agriculture, but it surely played a big role. The fact that regenerative agriculture could help us use less water was a huge motivation," explains Charl du Toit.

The spark came from witnessing another grower achieve superior yields, better quality fruit, and fewer physiological disorders like bitter pit through regenerative methods. Though that model proved costly, Charl and Anton de Jager (Head of Regenerative Agriculture) began exploring more economical approaches. Research trips to the United States deepened their understanding, with Anton immersing himself in the work of Dr Elaine Ingham and Gabe Brown. Today, De Keur is in its **fifth season of regenerative farming, with 149 hectares under these practices.**

Beyond the "Poison Room"

For Anton, who has worked at De Keur for 26 years, the shift addressed a long-standing discomfort with chemical dependency. "We had a storage room on the farm - the 'gif kamer' - where all the agricultural chemicals were kept. 'Gif' means poison in Afrikaans. I always thought, it can't be right to put poison on the fruit, the food that we eat."

An information day on regenerative agriculture proved transformative. Anton subsequently framed regenerative farming around three pillars: "Healthier people, a profitable system, and protecting the environment – those were our three pillars." His faith reinforced this outlook: "Inhabit and preserve the earth." He sees the entire farm as an ecosystem, not just orchards, with regenerative farming restoring the soil food web so organisms and cover crops work in partnership with farmers.

External pressures reinforced internal motivations. Fertiliser price spikes during the Ukraine war underscored conventional systems' vulnerability. Simultaneously, De Keur refreshed its brand identity with the slogan "Energised by nature". Anton seized this opportunity: "What do these words mean to us, and how do we actually live them?" It was a convergence of many factors that ultimately pushed the business towards regenerative agriculture.

When asked about advocating for change within a large commercial business, Anton's response was telling: "It was astoundingly easy – the board said, 'go for it!'" He subsequently qualified as a Soil Food Web consultant after five years, viewing this as merely the beginning of their journey.

"It's quite the mindset change to think that you don't have to put on bandages to heal the trees because nature is in balance."

– Charl du Toit (De Keur)



Photo by Carina Wessels

The Challenge of Transformation

The early years tested their resolve. De Keur went "cold turkey", eliminating fertiliser entirely in regenerative blocks – a bold move Anton admits could have been phased more gradually. Bringing in American consultant, Todd Harrington, for over a year provided vital technical support and confidence. "Regen is actually a much more scientific model than conventional farming. If I hadn't studied the soil food web, we probably would have given up."

Mindset proved as crucial as technical knowledge. Charl describes letting go of the urge to fix every problem chemically: "It's quite the mindset change to think that you don't have to put on bandages to heal the trees because nature is in balance." For Anton, this required faith: "You've got to trust the system to self-regulate. It sounds very nice in theory, but in practice it comes with a lot of worry." In difficult moments, he leaned on books like *Dirt to Soil* and encouragement from a regenerative study group.

Resistance from staff and consultants presented another hurdle. Many long-time managers, accustomed to conventional prescriptions were sceptical. "Most consultants didn't want us to go that route because then they'd be out of a job. They only told us we were going to fail. It felt like a very lonely journey," Charl recalls. Over four seasons, however, visible results built buy-in. "Showing them the impact of the changes makes it easier to get them on board."

Anton emphasises that regenerative farming demands a new type of farmer – not merely someone following instructions, but an observer studying the orchard closely and letting ecological processes guide decisions. "Observation is what is majorly lacking in our current system. The new generation farmer will have to become an observer."

For both Charl and Anton, the motivation is ultimately generational: securing long-term resilience for De Keur's orchards, people, and markets.



"The new generation farmer will have to become an observer." – Anton de Jager (De Keur)

Photo by De Keur

Chapter 2: How They Are Doing It

2.1. Zonnehaven's Growers: Building Soil and Stewarding Water

For Zonnehaven's growers, regenerative farming has become a practical toolkit for restoring soils, reducing inputs, and building resilience against climate uncertainty.

Revolutionising Soil Health

Howbill's soil restoration centres on compost, mulch, and no-till practices. The farm produces approximately 4,000 m³ of compost annually using chipped wood, chicken manure, lime, and wheat chaff, with applications guided by biennial soil analyses. Nothing leaves the orchards: prunings are chipped and spread on ridges, while larger branches feed the compost system before returning as mulch.



Photo by Malissa Murphy

Innovation extends to compost longevity. The team covers compost with chaff sourced from the managing director's wheat farm. "The chaff helps to make the compost last for three years on a block instead of only one," Ernst explains. While soil carbon levels rise gradually - about 0.5% over two years - the growers view this as meaningful progress. "Ten years ago, we would just drive past the orchard. Now we get out and dig in the soil to see what's going on."



Conventional orchard soil (left) shows depletion, while nearly three years of regenerative farming (right) rebuilds structure and life. (Photos taken at Doornkraal Agri farms)

The shift to no-till farming challenged conventional notions of "good farming". Previously, clean, bare ridges signified proper management, with weeds viewed as threats. Today, ground cover is deliberately encouraged. Cover crops improve soil structure, increase organic matter, and create root channels for water and nutrient penetration. When consultants argued fertiliser couldn't move through mulch and weed layers, Ernst disagreed: "The fertiliser pellets dissolve and move rather easily through the soil to the roots, because the growth of the weeds is making channels in the soil."

Water Stewardship Excellence

The early success with mulching during drought conditions proved its value – enabling survival on just 4,500 m³ of water per hectare, nearly half the usual allocation.

Today's water management combines multiple strategies: mulch, cover crops, drip irrigation, night-time watering, and variable speed drives on pumps that optimise flow whilst reducing electricity consumption. Workers contribute through daily soil moisture monitoring, digging into the top 30 centimetres and using hand-feel assessment. These observations are logged and mapped digitally, informing precise irrigation scheduling.

A decade of data shared with the local water users association reveals consumption has decreased from 9,500 m³/ha to 7,000–7,500 m³/ha – approximately 25% reduction – whilst yields have steadily increased, demonstrating soil restoration's tangible benefits.

Biodiversity as Agricultural Partner

The farms are actively reshaping landscapes to encourage biodiversity. Indigenous fynbos regenerates naturally, invasive species are removed, and fallen oak trees provide bee habitats. Howbill has fenced off blue gum areas for controlled harvesting and chipping whilst preventing invasive spread. Community members now receive old wooden crate planks for firewood rather than cutting protea bushes

.Doornkraal tracks biodiversity using [iNaturalist](#), with the discovery of *Protea nana* (Mountain-rose sugarbush or "skaamrosie" in Afrikaans), a high-altitude endemic species, sparking particular excitement. Howbill is preparing a site for a fynbos nursery to collect seeds from the veld for replanting.

"A decade of data shared with the local water users association reveals consumption has decreased by approximately 25%."



Photo by Malissa Murphy



Photo by Riaan Schoeman

“Winter sheep grazing converts weeds to natural fertiliser whilst reseeding clovers through droppings.”

Livestock integration has opened new ecological pathways. Winter sheep grazing converts weeds to natural fertiliser whilst reseeding clovers through droppings. They now hope to experiment with mobile sheep enclosures for year-round grazing without tree damage. Chickens scratch and peck beneath trees, aerating soil and controlling pests, though they require careful management against predators.

Managing weeds revealed nature's complexity. While Kissing Leaves (*Blue Justicia*) can host problematic cottonmouth beetles, diversity offers solutions: "In areas with more clovers, there were fewer Kissing Leaves and hence fewer beetles."

Wildlife return provides inspiring evidence of ecological recovery. Guinea fowl, pheasants, duiker, and grey rhebok have returned to orchards. Camera traps captured a mother leopard with two cubs traversing mountain trails also used for cycling and hiking tourism – an additional income stream complementing fruit production. The leopards help control baboon populations that damage orchards.

Economic Realities and Returns

Transition costs have been substantial, particularly for Doornkraal where mulch and compost transport proved expensive. A recent mobile chipper purchase enables on-site processing, reducing transport costs significantly.

Despite upfront investments, benefits are emerging clearly. Biological pest control (ReallPM) saves approximately R4,000 per hectare by reducing synthetic chemical needs. Cover crops and mulching have reduced fertiliser requirements, with some Pink Lady orchards producing premium-quality fruit for five years without inorganic fertiliser. Precision water and fertiliser application eliminates waste whilst reducing costs.

“We’re seeing enough progress to trust that in ten years, regenerative will be the more cost-effective option.”

– Charl du Toit (De Keur)



Photo by Carme Naude (Hortgro)

2.2. De Keur: Farming with Faith and Science

De Keur’s regenerative implementation draws from Anton’s Soil Food Web studies, with ongoing comparisons between regenerative and conventional orchards informing continuous improvement.

Soil Transformation Through Science

The journey began boldly: eliminating synthetic fertilisers entirely in regenerative blocks. Results have nonetheless encouraged continuation. Through on-farm composting, organic matter returns to soil, guided by regular soil and sap analyses.

Diverse cover crops – targeting at least four species per block, though clovers often dominate – create habitats for beneficial insects and soil organisms. These crops, especially clovers, fix up to 50 kg N/ha annually. Despite absent chemical inputs, soil and sap analyses show balanced nutrient levels.

Microbial activity has surged visibly. Fungi and earthworms reshape soil structure dramatically. One production manager noted soil once requiring a pickaxe now accepts pen penetration – clear evidence of improved aggregation and infiltration. Species absent for 20 years are returning.

Anton stresses using untreated seeds, as seed coat microbes prove critical for re-establishing balanced soil food webs.



The journey of soil health in De Keur: compost preparation (left), careful spreading on ridges (middle), and the first green shoots of cover crops (right).

Water Management Revolution

The 2017 drought starkly reminded De Keur of the Koue Bokkeveld farming's vulnerability. While not the sole change driver, it reinforced urgency for practices improving soil water-holding capacity. Results prove striking: regenerative blocks hold water so effectively that over-irrigation signs appeared last season – not from increased application but because healthier soils simply need less. Anton observes this even in soil biology: "When we irrigate too much, I pick it up by seeing more anaerobic microbes in the soil."

Today, drip and micro-irrigation systems predominate, with overhead irrigation used only for pre-harvest fruit cooling and colour enhancement. Soil moisture monitoring combines hand-feel assessment with soil probes and weather stations for irrigation scheduling.

Biodiversity and Livestock Integration

Regenerative practices have transformed De Keur's approach to biodiversity and pest management. Diverse cover crops provide living roots hosting beneficial microbes and insects whilst suppressing weeds – eliminating chemical herbicide needs in regenerative blocks for five years.

Winter grazing includes sheep fitted with specially imported masks preventing fruit bud damage. Charl notes cattle work better than sheep, consuming more material with less tree damage, though density requires careful management. "The learning curve of integrating livestock into the system was massive," he admits, "but the livestock offers another income stream."

Anton's chicken trial for weevil control proved nearly as effective as chemical sprays, with added egg production benefiting workers' families. While predators like jackals, mongooses, and raptors took their toll, this demonstrated predator-prey balance value within the farm ecosystem.

Wildlife return provides encouraging validation. Guinea fowl, grey rhebok, and diverse bird species again inhabit orchards – living proof that cultivated agriculture and biodiversity can coexist.

Navigating Economic Realities

Transition has demanded considerable investment and patience for a business of De Keur's scale. Building internal expertise through consultant support and learning excursions represents major commitment. Despite upfront demands, results encourage continuation. Regenerative block yields match conventional orchards, with early indicators suggesting quality improvements including higher Brix levels and enhanced eating experience.

Charl monitors financial performance closely between systems. "Right now, the yields are similar, and costs haven't dropped yet – mainly because of the high initial investment. But we're seeing enough progress to trust that in ten years, regenerative will be the more cost-effective option."

From Chemicals to Biology: Proof in the Soil

Anton de Jager's Orchard 141 compared conventional vs. regenerative practices (2022–2023 season)



Cost

- R7,800/ha savings on chemicals
- Less fertiliser & pesticide use



Production

- Equal yields as conventional block
- No drop in fruit quality



Soil Health

- Organic matter: **2.5% → 3.2%**
- Carbon: **1.5% → 1.9%**
- Roots grew deeper
- Water infiltration: **5 sec → 1 sec**



Biodiversity

- Return of fungi, protozoa, nematodes, earthworms
- Soil life visibly restored



Before Biology



After Biology

Matched yields. Lower costs. Healthier soils.

Regenerative farming proved equally productive while cutting inputs, restoring soil life, and building resilience.

Chapter 3: Conclusion & Future Outlook

Lessons from Transformation

What began as desperate responses to environmental and economic crises has evolved into sophisticated ecosystem management approaches. Both Zonnehaven's growers and De Keur have discovered that working with nature, rather than against it, delivers results once thought impossible under conventional management.

The journey revealed that regenerative agriculture demands fundamental shifts in both practice and philosophy. "It changed from being a farmer to also being a steward of the land," Ernst reflects. This evolution from extraction to stewardship represents more than changed practices - it's a reimagining of agriculture's purpose and potential.

Perhaps most surprisingly, regenerative farming proved more scientifically complex than conventional methods. Anton's journey from discomfort with the "gif kamer" to becoming a certified Soil Food Web consultant illustrates that this isn't a return to primitive methods but an advancement to deeper ecological understanding. The ability to read soil biology, understand plant-microbe interactions, and recognise ecological indicators has become as valuable as traditional farming knowledge.

Both farms learned that patience and trust in natural systems, while initially uncomfortable, ultimately deliver resilience that chemical interventions never achieved. The synthesis of old wisdom and new science points toward agriculture's future.

Building Tomorrow's Agriculture

Looking ahead, ambitions are clear and bold. De Keur aims for complete regenerative transition within a decade, seeking to demonstrate scientifically that their fruit offers superior nutritional density for market differentiation. At Howbill, the vision is carbon neutrality - or even carbon negativity - "a big dream," as Ernst describes it. Doornkraal is on the same path, steadily embedding regenerative practices as the foundation for long-term resilience.

Knowledge-sharing remains vital, though both note limited local research and education in regenerative fruit systems. Industry bodies are slowly incorporating regenerative farming into programmes, but much work remains. The next generation requires training not just in following protocols but in observation and response to living systems.

Market recognition of regenerative practices as strategic advantage grows steadily. While premiums aren't guaranteed, buyers increasingly seek direct relationships with producers demonstrating responsible, resilient systems. "It's not about the price, it's about the relationship," Ernst explains. "We want to do business long term with people who share our values."

The Partnership Imperative

Worldwide Fruit's partnership proves instrumental in connecting ground-level transformation to consumer expectations abroad. By amplifying growers' efforts, facilitating knowledge exchange, and helping build evidence bases, WFL helps position regenerative farming not as pioneering exception but as emerging standard. The partnership with WFL has been instrumental in building the narrative that connects work on the ground to consumer expectations in international markets.

The stories of Zonnehaven's growers and De Keur illuminate why regenerative fruit farming is essential: it rebuilds soils, conserves scarce water, supports biodiversity, and offers economic resilience pathways amid mounting uncertainty. Their vision extends beyond producing premium apples and pears to ensuring future generations inherit land that is healthier, more productive, and more alive.

As Charl advises: "It is fun, but it is not easy. Be sure what you want to achieve and why you want to achieve it." Ernst adds encouragement: "Don't be scared to make the jump. Start small, but dream big."

These growers embody a fundamental shift in agricultural philosophy - from fighting nature to partnering with it, from farming for today to stewarding for tomorrow. Their ideal future, as one grower expressed, is about **"living by the words: farming for the future."**



"Don't be scared to make the jump. Start small, but dream big."
– Ernst van Dyk (Howbill)

Photo by Sonja van Schalkwyk

Sources:

- Information for this case study was gathered from Interviews with De Keur, Howbill Farming and Doornkraal Agri.