

# Growing great stock in the face of drench resistance

Farmer stories from the Wairarapa Parasite Management Group





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# **Wairarapa Parasite Management Group members**

- Sara Sutherland (group facilitator)
- George Tatham, Matariki Terraces (host & panel)
- Martin Reisima, Matariki Terraces (host & panel)
- Sam Johnston, Reata (panel)
- Stu McKenzie, Te Rangi (panel)
- Nico Butler, Ongaha (panel)
- Paul Crick, Glenside (case study)
- Ben Hooper, Waierua
- George Falloon, Thistletop
- Tony O'Boyle, Marangai
- Richmond Beetham, Kourarau (case study)
- Matt Wyeth, Spring Valley

This booklet includes some case studies from group members.

Past members include:

- Dan Hansen
- Paul Lyttle
- Simon Dalgliesh
- Sam O'Fee
- Robyn Hickson
- Logan Nation



# Drench resistance: what you need to know

Drench resistance is becoming a real challenge for sheep and beef farmers - not just here in New Zealand, but around the world. It's making it harder to control parasites, which affects animal health, slows growth, and hits farm profits.

A recent survey showed that resistance to triple combination drenches is already showing up in:

- 1 in 3 cases of Teladorsagia, and
- 1 in 2 cases of Trichostrongylus.

In one Wairarapa example, drench resistance led to a \$96,390 drop in annual gross margin.

While stopping resistance before it starts is ideal, many farmers are now focused on managing parasites effectively even when resistance is present. That means using smart, practical strategies that work on the ground.

#### Local farmers leading the way

B+LNZ teamed up with Wairarapa vet and parasite expert Sara Sutherland to launch the first Livestock Parasite Management Group (LPMG) in 2023.

Farmers in the group are using a mix of proven techniques, including:

- Integrated grazing (mixing species or stock classes or grazing area swaps between species)
- Reducing drench use where possible
- Changing stocking policies to reduce parasite pressure
- Monitoring parasites and drench effectiveness more closely
- Managing pasture and crops to avoid worm larvae
- Breeding for parasite resilience and resistance.

#### It's about smart farming, not just more drenching

We know change isn't easy. But building confidence and know-how is key. That's what the LPMG is all about - helping farmers tackle drench resistance head-on with a whole-farm approach. Farmers in the group have gone from trying basic strategies to testing and refining advanced ones. Many have:

- Cut back on drench use
- Adjusted stock ratios
- Made better purchasing decisions
- Seen improved FECs, better resistance status, and fewer parasite issues.

#### **Growing the Movement**

Thanks to the success in Wairarapa, B+LNZ has now set up seven parasite learning groups around the country. Early results are promising, with farmers already seeing benefits after just one year.



# Farmer story: George and Sarah Tatham, Matariki Terraces

Drench resistance is a serious and growing issue for sheep and beef farmers in NZ and globally, George and Sarah Tatham farm Matariki Terraces on the East Coast, with George being the fifth generation farming in Homewood alongside cousins. Together with farm manager Marty Reisima, they run a high-performing business across two locations, matching land use to land type. Their achievements include winning the 2010 Greater Wellington Ballance Farm Environment Award and other national accolades.

#### **Key facts and figures**

- · Diversified sheep, beef and cropping
- About 1485ha effective including 5km of coastline
- Sheep, beef and dairy grazers on flat/medium hill contour; steeper land previously sheep, now planted in natives and production forestry
- Approx 19,000 stock units: 5000 lambs finished; 2000-4000 autumn trade lambs annually; includes 200 MA Angus cows, 180 Angus beef finishers, 300 bull beef
- Sheep:Cattle ratio 65:35
- Incorporates regrassing, and seed and forage crops (summer and winter)
- Fertiliser according to nutrient budget
- Breeding programme selects for production and environmental resilience traits
- 7 full time staff.

#### Matariki's parasite programme

The farm's goal for parasite management is:

Break the cycle of increasing drench resistance by reducing larval contamination on the flats while still finishing all own stock and using less drench.

#### The challenge

- Reduced drench efficacy started to show in 2021, with drench checks showing resistance in sheep 2023
- · Lamb sales are 70% of income, which means that drench resistance presents a significant economic risk
- · Lambs were staying on for longer as they were not growing, which meant larval challenge was increasing
- · Needed to try and break the cycle.

#### The approach

George and Marty were original members of the Wairarapa Parasite Management Group. Since joining, the farm has shifted to FEC-based drenching, stopped routine pre-weaning treatments, and adjusted grazing and stock ratios. They've also increased summer cropping and rested 80-100ha from sheep for several months. These changes aim to reduce inputs while maintaining performance and financial viability.

"None of our changes have been drastic. We simply focused on reducing drench use. This meant doing a lot more FEC and larval cultures to understand the species of parasites present, and making our management decisions based on those results." Marty Reisima.



#### Matariki techniques for managing drench resistance

Integrated grazing: lifted cattle ratio from 70:30 to 65:35 sheep:cattle.

Planning: follows a parasite management plan developed with vet, reviewed annually; grazing rotations are managed to introduce worm refugia.

Monitoring: FECs and larval cultures to inform management decisions.

No drenching onto clean grass areas: care is taken to maintain refugia in clean grass areas to avoid building up resistance hotspots.

Animal health and parasite advice: farm adviser and veterinarian to support animal health and parasite management.

Drench use: focus on reduced use; drenching to FEC status and larval culture results; still struggling with how to stretch the drench interval in lambs at certain times.

#### Farm map - Matariki



# Farmer story: Sam Johnston, Reata

#### Using financial modelling to inform on-farm decisions for parasite control.

Tīnui sheep and beef farmers Sam and Sarah Johnston have made key changes on the farm to address drench resistance, prompted by Sam's involvement in the Wairarapa LPMG.

#### Farm facts (2023/24)

- 800ha effective property in the Tīnui district in the Wairarapa
- Mix of flats, medium and steeper hills with some crop (40-60ha of crop kale and Pasja)
- Approx 2500 MA ewes, 680 2ths, 1000 hogget replacements
- 141% lambing with 27.5kg weaning at 90d; ewe efficiency 63.7%
- · Lambs typically finished on farm; finishing policy varies with season and markets
- · No additional trade lambs purchased
- 120 MA cows; replacements retained, surplus females kept and finished and surplus males finished before Christmas as 2yo
- · No nitrogen fertiliser used.

#### **Parasite management**

Reata identified drench resistance in 2018, with FECRTs showing triple combination drenches only 70% effective for Trichostrongylus. Risks included limited monitoring, no refugia, and trading lambs.

With support from the Wairarapa group and vet Sara Sutherland, the farm began transitioning to new parasite management policies. FARMAX modelling helped Sam understand financial impacts and identify viable strategies to manage resistance while maintaining profitability. In the end, the options Reata went with weren't the ones that would make the most money, but they let them put family and a bit of lifestyle first... "So I don't end up a grumpy old man," says Sam. "There's more to life than just chasing dollars."

Changes made to address drench resistance included:

- Reduced drench use with no routine adult ewe drenching (only drenching the worst / tail end ewes)
- No capsules
- Lots more monitoring
- Stretching drench interval in lambs on crops with monitoring
- Dropping the stocking rate (lower cost structure)
- · Lifting the cattle ratio
- Stopped mating ewe hoggets.

Without regular drench reduction tests, the resistance would not have been identified and the path to the other side would have been more difficult. The business has largely beaten drench resistance and further small changes are planned to continue the move towards a more profitable and sustainable system.



# Farmer story: Richmond Beetham, Kourarau Farm

#### Farming with intensive monitoring to avoid drench resistance.

Richmond and Suzi farm on Kourarau, a mixed hill country block out of Gladstone in the Wairarapa. Richmond appreciated learning from other members of the Wairarapa LPMG to keep the farm free from drench resistance.

#### **Farm facts**

- 410Ha (394 effective) including 65Ha in crop
- The farm is managed in three blocks the flatter bull block (cell grazing), sloping front country and back hill country
- 1200mm average rainfall
- Spring and autumn sown grass, chicory, clover, kale and turnips
- Sheep
  - 1800 terminal ewes (no replacements owing to size of the block, and management and workload considerations)
  - 150-250 lambs sold store November, remainder killed
  - 400-700 lambs purchased February/March summer for winter trade
  - Occasional ewe lamb grazing
- Cattle:
  - buying in 200kg weaner or yearling steers and bulls; finish at 2.5y; cell grazing
  - Dairy heifers or mixed age cows to clean up.

#### **Parasite management**

FECs with drench checks 10d post-drenching are used routinely on this farm, and drench resistance has not been identified. A drench check last year indicated reduced effectiveness, so the farm is using a recent FECRT to make some changes so it continues to stay free of drench resistance. Practices used to maintain this status are:

- Drenching 2ths is based on FECs and mixed age ewes are not drenched
- Aiming to stretch out lamb drenches based on FECs
- Integrated grazing of mixed age sheep and cattle with lambs, rotating through blocks with different crop and pasture is very important. Sheep:cattle ratio can vary from 75-70% sheep to 50:50, depending on timing of lamb sales and cattle buying. The smaller farm size with cell grazing and three blocks means rotation must be tightly managed, posing a risk for managing parasites but also allowing good control when it's done right.
- Bull blocks have bulls from September to December so are effectively 'clean', and there has been a lot of discussion about how to protect these clean pastures when lambs are weaned into them.

Continued risks are the trade policy and no cattle quarantining, but the farm is looking to improve quarantine policies and make further changes to drenching and other policies based on the FECRT.

Richmond said the group increased his knowledge, skills and confidence to help with suggesting new strategies.

"Group learning is very good, from properties who are navigating it on a day-to-day basis..."



# Farmer story: Paul Crick and Dayanne Almeida, Glenside

Breeding for parasite resistance as a sustainable solution to worm challenges and drench resistance.

Paul is a longstanding member of the Wairarapa Livestock Parasite Management Group. The Glenside farm story is shared here to show how a strong focus on genetics can help achieve long term parasite management goals.

#### **About Glenside**

Paul Crick and Dayanne Almeida run sheep, beef and deer on two leased properties, hill country farms Glenside and neighbouring Arahura just south of Masterton in Gladstone, Wairarapa. Their overall goal is finding the most productive animals to suit Wairarapa's summer-dry conditions and their management. The stud is WormFEC® Gold and FEGold® certified.

#### **Key facts and figures**

- Gladstone is summer dry-winter wet with 900-1000mm annual rainfall
- 850-ha effective
- Wintering approx. 5000 sheep including Advanced Romney Designer Genetics ARDG and Central Progeny Test hill flock animals, 270 beef cattle and 750 red deer, including replacements
- · All sheep, studs and commercials are individually performance recorded using EID tags
- WormFEC® Gold and FEGold® certified.

The ewe flock breeding program focuses on key maternal traits including reproduction, growth, and ewe body condition as well as health traits including worm resistance and FE tolerance. Ewe hoggets, yearling hinds and heifer replacements are mated annually and dries sold. Ewe hoggets are scanned twice to better understand the losses happening between the first scanning and set stocking.

#### **Parasite management**

With a strong focus on genetics, Paul and Dayanne have used their own breeding lines to improve parasite resistance in their commercial ewes. Their goal is to lower parasite burden, reduce drench use, and maintain production. They're building on FEGold® and WormFEC® Gold standards, and recently added the CARLA Saliva Test to boost genetic gains for worm resistance.

Alongside genetics, the farm uses several parasite management strategies: no pre-weaning drench, regular FEC monitoring, and grazing cattle or ewes behind lambs to reduce larvae. With a focus on continuous improvement, they recently trialled the SmartWorm® app through a B+LNZ study, nearly halving drench use and saving \$2.78 per lamb <a href="mailto:beeflambnz.com/knowledge-hub/PDF/using-targeted-selective-treatment-reduce-drench-use.pdf">beeflambnz.com/knowledge-hub/PDF/using-targeted-selective-treatment-reduce-drench-use.pdf</a>.



#### **Using Genetics to Manage Parasites**

Genetic resistance helps animals maintain lower FECs under worm challenge by suppressing, expelling, or killing worms. At Paul and Dayanne's, ram and ewe hoggets are FEC-tested twice yearly to improve accuracy. Only ~72 of 600 SIL ram breeders measure and connect for worm FEC.

Resilience, inherited separately from resistance, allows animals to grow well despite worms - but high pasture contamination can still overwhelm them. Only ~6 SIL breeders measure resilience.

Tools like nProve help benchmark breeders selecting for resistance or resilience. WormFEC® Gold flocks are in the top 25% for resistance and meet strict testing standards.

#### **Key Advice:**

- Genetics are a long-term tool for productivity.
- · Gains compound over time.
- · Ask breeders for percentile rankings and genetic trend graphs.
- Use industry benchmarks via nprove.nz

#### **Resources and further information**

#### Wormwise

The B+LNZ Livestock Parasite Management Groups all use B+LNZ Wormwise as the source of information about about internal parasites.





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