

Overview of the Kiwifruit Industry Water Strategy

He wai mō Āpōpō
Water for the Future

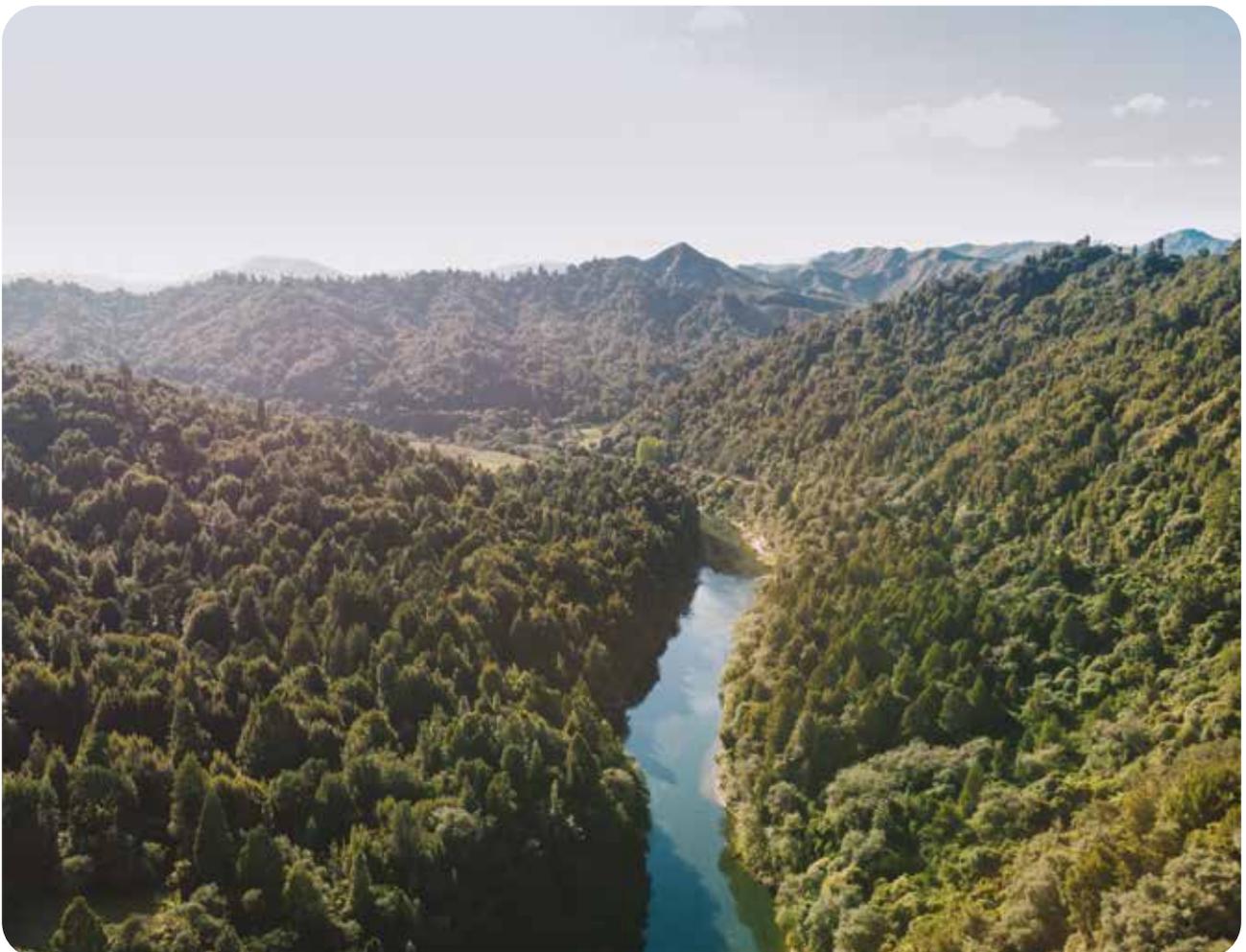


In 2019 the kiwifruit industry launched its water strategy, He wai mō Āpōpō | Water for the Future. It was developed collaboratively with industry, recognising water as a taonga, a valuable resource, that we are all responsible to care for as kaitiaki (guardian or custodian).

Industry growth, climate change impacts, environmental degradation, and rising demand from other users have reduced water availability in some areas. The industry-wide strategy was needed because water challenges now extend beyond access. Regulator and customer requirements are evolving. They increasingly seek to verify that growers are compliant and thoughtful water users.

The aspiration was for all kiwifruit growers to be able to:

- demonstrate alignment of nutrient inputs and losses to good practice limits,
- use monitoring technology to actively manage and demonstrate efficient use of water, and
- access tools and knowledge to protect and foster healthy, fertile soils.



We're proud of how far we've come



Our ambitions were high, and the regulatory environment kept evolving. Still, we're proud of how far we've come. There's no magic formula for thoughtful water use, it requires effort from everyone. But we've taken steps which can make a real difference.

We've completed a significant body of research to help the industry optimise water and nutrients while minimising environmental risks. We've delivered:

- over 50 extension events involving hundreds of growers on irrigation and nitrogen management,
- guidance and tools which are now available to growers on the Zespri Canopy website,

including calculators for irrigation and nitrogen balances in the Soil, Nutrients and Water section,

- numerous discussions and submissions with regulators advocating for the kiwifruit industry,
- countless Kiwifruit Journal articles showcasing good practice and the water strategy initiatives, and
- grower engagement in community-led catchment restoration programmes.

Here's a closer look at some of the resources we've developed to support growers with optimisation:



Water and irrigation management resources



Well-managed, efficient irrigation can help growers achieve kiwifruit production goals, while minimising costs, water waste and nutrient losses. Technology and tools are enabling the industry to more accurately measure this so irrigation can be targeted and managed better.

Irrigation management

- Tips to guide grower decisions for when to turn irrigation on and how long to run it for.
- Checks which can be undertaken throughout the season to keep irrigation systems delivering the right amount of water to vines.
- Guidance on soil moisture monitoring or irrigation scheduling to inform irrigation decisions. The best option for each situation depends on factors such as soil type, rooting depth, measurement type and frequency, and ease of use.

Water storage

- Use the peak water needs calculator on Canopy to assess how much water is needed at peak times. From there, consider whether the take is within the consented allowance and whether there is a need to apply to take more (if available), or invest in, water storage.
- There's also guidance on what to consider when investing in water storage, including pros and cons.



Nutrient resources

Nitrate losses are an important environmental consideration for orchard management. Losses are influenced by a combination of factors including rainfall, soil types and timing and rate of nutrients applied.

The four Rs

Guidance on applying nutrients at the **right rate**, of the **right type**, in the **right place**, and at the **right time**. The four Rs help optimise vine nutrition, support fruit production and quality, and reduce environmental risk.

Insights and guidance on nitrogen management and nutrient balance calculations

Nitrate nitrogen is highly soluble, making it very plant available, but also prone to leaching below the root zone. This poses a risk to waterway health. Using balance calculations to compare nitrogen inputs and removals will help growers optimise efficiency and better manage environmental risks. The available guidance provides a step-by-step approach for calculating nitrogen balance.

The nitrogen balance calculation includes compost as it is a source of rapidly released plant-available nitrogen. Until recently, it was thought that compost nutrients would be released at the rate which compost decomposes. But research has found that 7-30% of total nitrogen content (mainly nitrates) is released within four months of application.



Healthier soil resources

Soil health supports optimal fruit production, quality and environmental care. The following resources have been produced:

- ◆ Guidance on soil and leaf testing to inform nutrient management decisions
- ◆ Guidance on soil health assessments
- ◆ A DIY guide for soil health assessments, including basic biological and physical soil tests, with equipment growers are likely to already possess. The tests include guidance on test methodology and understanding the results.

Strengthened community engagement

The industry partnered with community organisation Wai Kokopu, to strengthen local water catchment restoration initiatives. Wai Kokopu's vision is to restore health to the catchment from Rotoiti and Rotoehu, to the Waihi Estuary.

The industry helped connect growers to the programme who want to reduce environmental harm while retaining profitability, a low-risk threshold, and climate resilience.

Next steps

The Government is progressing a major, multi-year work programme to reform New Zealand's resource management system. This includes replacing the Resource Management Act 1991 (RMA) and reviewing key national direction instruments such as the National Policy Statement for Freshwater Management (NPS FM). The reforms are intended to create a more efficient, consistent, and enabling system; particularly for productive sectors such as horticulture.

While the regulatory environment remains uncertain as the Government continues its

work through the reform programme, the industry's commitment to the strategy vision remains unchanged:

to collectively protect and enhance our water resources for our people, our environment and our communities while enabling kiwifruit industry growth.

The kiwifruit industry will continue working with industry partners to build knowledge on water and nutrient practices to support growers' use of best practice, as well as strengthen industry advocacy.



Keen to be a better water user?

Visit the Zespri Canopy website pages on soil, nutrients and water for guidance.

A wide range of practical resources are also available through Irrigation New Zealand.

