

Ngā Mahi a Wai Māori

Northland Water Storage and Use Project



Growing Kiwifruit

- High kiwifruit productivity requires that they are grown in a temperate climate with warm spring and summers, but there is a requirement for winter chilling.
- In the variable summer rainfall climate of Northland, irrigation is essential to achieve consistent high yields.
- Zespri currently has a strong growth target and Northland is very much part of that plan.
- Kiwifruit orchards require a considerable amount of capital to develop.
- Expected orchard returns are relatively slow to achieve mature yields but once they do so the returns are excellent, and the invested capital is recovered relatively quickly.

Kiwifruit Requirements

High kiwifruit productivity requires a temperate climate with warm spring and summers, with winter chilling or other forms of management, to encourage the initiation of a good number of fruiting buds. The Northland climate is conducive to achieving high productivity from kiwifruit.

Kiwifruit achieve optimum yields when they are grown in deep fertile soils that are free draining and have an excellent soil structure. Most kiwifruit are grown on flat to gently undulating land and utilise growing structures such as pergola systems. In the variable summer rainfall climate of Northland, irrigation is essential to achieve consistent high yields.

Labour is required year-round with full time employment of one to two employees required for a 10ha orchard. In addition, seasonal labour is required on a part time basis during flower and fruit thinning, spraying and the most labour-intensive tasks of pruning and harvesting.

Kiwifruit growers are represented by New Zealand Kiwifruit Growers Inc (NZKGI).



The Investment Outlook

The export of Kiwifruit is controlled by Zespri - a grower-owned company which manages and markets Kiwifruit throughout the world. Zespri currently has a strong growth target, increasing its global sales from approximately \$2.0 b to \$4.5 b by 2025.

The current outlook sees global demand continuing to rise by approximately 27% over the next five years. To meet that currently constrained demand, Zespri plans to release an additional new production of

approximately 9,600 ha of the new SunGold variety. This variety is licensed through an auction system. Currently purchasers of the licence are paying approximately \$250,000 per productive hectare. Expanding the new variety into Northland is very much part of Zespri's plan.

Increasing competition from competitor producers and the provision of the short-term high labour requirements to pick, pack and prune kiwifruit are among challenges the industry faces.

Zespri's plan in supply side delivery is to "optimise delivered quality to markets through a lean and efficient supply chain which effectively passes market signals back to growers". This is achieved by "a robust, sustainable, supply chain that reliably delivers safe, healthy, traceable, high quality, branded kiwifruit, supported by world class sales and marketing."

As part of achieving this aim, Zespri has a payment system which differentiates and rewards payments for timing of supply, taste, supply and a loyalty component.



Possible Financial Returns

The following information on the financial returns from a greenfield development of the SunGold variety is taken from the ANZ document "Kiwifruit Industry Insights Update 2019: investment opportunities and challenges".

Kiwifruit orchards require a considerable amount of capital to develop. On top of the purchase price of the SunGold licence (\$250,000) there is the investment in the development of the orchard which can vary from \$100,000 to \$250,000 depending on the scale of the development and the nature of the orchard itself. This can mean that the investment in the orchard itself, without consideration of the value of the land, can be between \$350,000 and \$500,000 per ha.

	Mature Orchard (Year 6 Onwards)
Development Costs	
SunGold licence	250,000
Infrastructure	150,000
Total development	400,000
Tray equivalents (TE)	14,000
Average OGR \$ per tray	8.50
Operating	
Income	119,000
Growing Costs	40,000
Cash Surplus	79,000

Orchard returns may vary considerably from the average expectations shown here.

The orchard is relatively slow to achieve the mature orchard returns shown here (six years).

During that time the orchard is dependent on a negative cashflow for a considerable number of years but longer-term the returns are excellent, and the invested capital is recovered relatively quickly.

Table 1 - Mature Orchard Returns (per ha)

Social and Environmental

Kiwifruit will have a positive impact on the local population with one to two permanent staff required for every 10 hectares planted and considerably more seasonal labour required for pruning, picking and packing. The processing, packaging and marketing all require additional capital and labour to service this growing industry. These are all positive impacts on the local community.

Whilst significantly different to traditional livestock farming, and typically requiring a reliable water source for irrigation, the environmental footprint of kiwifruit is more than likely to be smaller.

Possible means of affordability of the investment.

The traditional farmer may feel daunted by the initial cost of developing a kiwifruit orchard and the skills required to make it work at optimum productivity. Other than upskilling yourself, alternatives to transition to irrigated horticulture and realise the potential of your land include:

- contracting a turnkey orchard developer;
- forming a joint venture partnership;
- leasing your land to another operator; or
- selling the land to an orchard developer.

Sources of Information

- New Zealand Kiwifruit Growers Inc (NZKGI) [here](#)
- Zespri [here](#)
- ANZ's excellent review of the state of the kiwifruit industry [here](#)
- Your local horticultural consultant.

Information prepared by Williamson Water and Land Advisory, October 2019.