



BLUEBERRIES

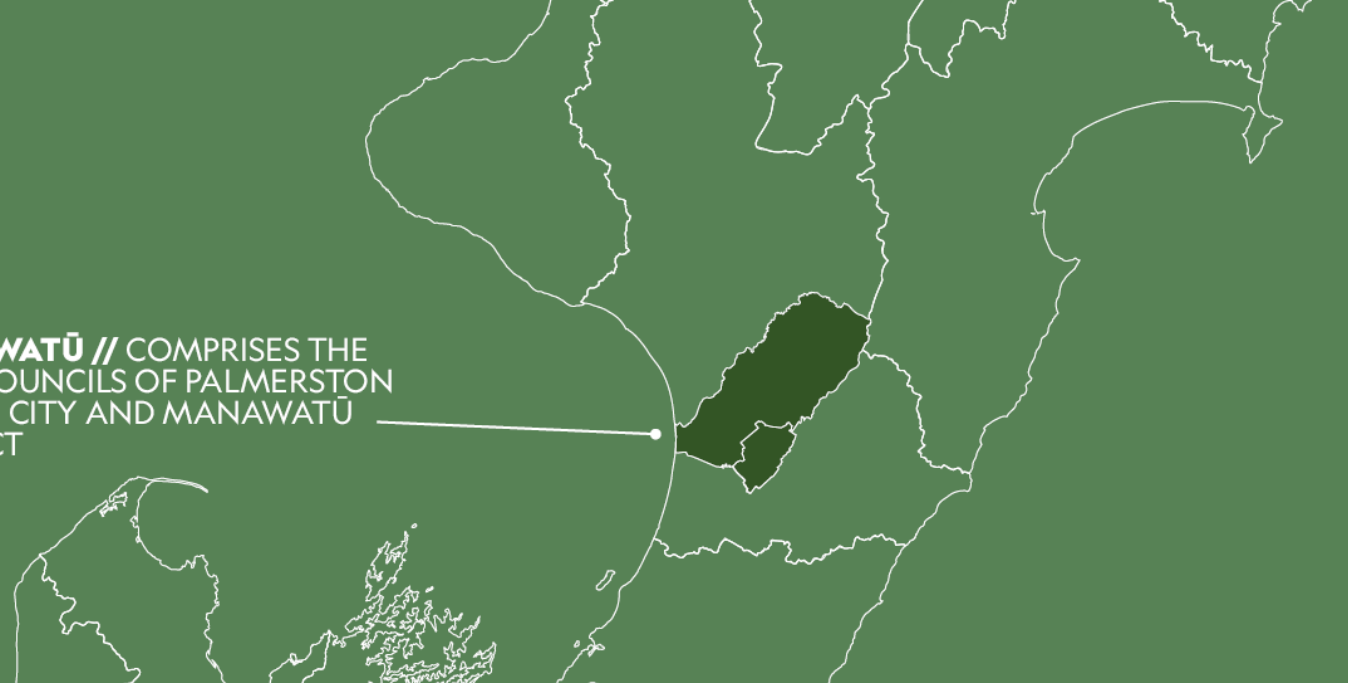
CEDA
CENTRAL ECONOMIC
DEVELOPMENT AGENCY

MANAWATŪ

IN MANAWATŪ

A GROWER GUIDE

PUBLISHED: SEPTEMBER 2025



MANAWATŪ // COMPRISES THE
TWO COUNCILS OF PALMERSTON
NORTH CITY AND MANAWATŪ
DISTRICT

BLUEBERRIES // A HIGH-VALUE PERENNIAL CROP WITH EXPORT AND LOCAL POTENTIAL

Blueberries are a long-lived, high-value crop well-suited to specific microclimates in the Manawātū region. With careful site selection and management, they offer strong returns through both fresh and processed markets, including export opportunities.

This guide supports landowners and growers interested in diversifying into perennial fruit production in Manawātū. Developed by the Central Economic Development Agency, this guide was created as part of the [Manawātū Regional Food Strategy](#).

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SUITABLE BLUEBERRY VARIETIES + CHARACTERISTICS

Manawatū's temperate climate is well-suited to blueberry production, particularly for varieties that thrive in cooler winters and consistent soil conditions.

Climate considerations for the region are further outlined in the [Diversification of Farm Systems report](#).

Choosing the right type of blueberry is essential, as each group and variety brings different characteristics that can influence harvest timing, yield, and market potential.

CHARACTERISTICS OF BLUEBERRIES

- > **Cold-requiring:** Some varieties need a high number of chilling hours (800–1,000+) to fruit reliably.
- > **Extended harvest:** Selecting a mix of early and late fruiting types can help spread the harvest season.
- > **Soil-sensitive:** Blueberries require acidic soils (low pH) and consistent moisture for optimal growth.
- > **Cross-pollination:** Some types benefit from or require cross-pollination to improve fruit set and yield.
- > **Climate tolerance:** Certain varieties are more tolerant of heat and drought, which can be useful in variable seasons.

While some varieties may exhibit multiple of these traits, growers should also consider factors such as fruit cracking, storage, and market timing when selecting cultivars.



Blueberry types and varieties likely to suit the Manawatū region include:

NORTHERN Highbush:

Early to mid-season - Cold-Requiring - Proven Commercial Performer

Northern Highbush is the most widely grown type in New Zealand's commercial blueberry sector. These varieties require a significant number of chilling hours (800–1,000+) and perform best in areas with cold winters and consistent soil moisture.

Favoured for their early to mid-season fruiting, Northern Highbush varieties are known for their reliable yields and suitability for fresh and processed markets. They require acidic soils and benefit from careful irrigation management.

> Recommended varieties within the Northern Highbush type:

Bluecrop, Duke, Reka, and Elliot are all well-established, high-performing cultivars with good flavour, yield, and adaptability.

RABBITEYE:

Late season - Heat and Drought tolerant - High Yield Potential

Rabbiteye blueberries are a later-fruiting type that can help extend the harvest season into late summer. They are more tolerant of heat and drought than Northern Highbush, making them a useful option in warmer or drier microclimates.

These varieties require cross-pollination for best results and can produce high yields, though they are more prone to fruit cracking under inconsistent moisture conditions.

> Recommended varieties within the Rabbiteye type:

Tifblue, Powderblue, and Brightwell – these cultivars are known for their vigour, productivity, and suitability for extending the harvest window.





SELECTING A SITE

Prior to selecting the site where you wish to grow blueberries, it is important to understand the environmental and soil conditions that will support healthy plants and maximise fruit yield and quality.

Blueberries are highly sensitive to soil conditions and require a very specific environment to thrive. The ideal soil for blueberries is very acidic, with a pH range of 4.5 to 5.5, and must be free-draining yet moisture-retentive. Organic or sandy loam soils with high organic matter content (3% or more) are considered optimal. Soil testing is strongly recommended prior to planting, and resources such as [Ballance's soil testing guide](#) can assist in this process.

Blueberries also require adequate winter chilling to initiate fruiting, but are sensitive to late frosts, particularly during flowering. Selecting a site with shelter from prevailing winds can help protect blossoms and developing fruit, while also reducing plant stress.

Consistent summer moisture is essential for fruit sizing and quality. Poor drainage is the most common cause of crop failure in blueberries, often leading to root rot and reduced plant vigour. To mitigate this, planting in raised beds or ridges is highly recommended, as this improves drainage and helps maintain optimal root zone conditions.

As a perennial crop, blueberries will remain in the soil for many years. Therefore, ensuring the site is well-prepared and meets the specific needs of the crop is critical for long-term success.





PLANTING INSTRUCTIONS

Successful blueberry establishment begins with careful planning and preparation, particularly during the dormant season when plants are best suited for transplanting.

The ideal planting window for blueberries in the Manawatū region is late autumn to early spring (May–August), allowing roots to settle before active growth begins.

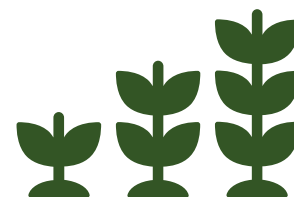
Soil preparation should be completed well in advance of planting. This includes testing and adjusting soil pH to the required range of 4.5–5.5 and boosting organic matter to above 3% through compost or other amendments. Blueberries are highly sensitive to soil conditions, and planting into raised beds or mounded rows is strongly recommended to improve drainage and root health.

Spacing is a key consideration for both plant health and operational efficiency. Plants should be spaced 1–1.2 metres apart within rows, with 2.5–3 metres between rows to allow for machinery access, air circulation, and light penetration. These factors contribute to disease prevention and uniform fruit development.

The planting process itself is straightforward but must be done with care:

1. Ensure the soil is loose and friable, avoiding compaction.
2. Dig planting holes into prepared raised beds or mounds.
3. Position plants upright and at the same depth they were grown in the nursery.
4. Apply a thick mulch layer (10–15 cm) using pine bark or sawdust to suppress weeds, retain moisture, and maintain soil temperature.
5. Water thoroughly after planting to settle the soil around the roots.

Pollination is essential for optimal fruit set and yield. It is recommended to plant at least 2–3 different varieties within the same block to encourage cross-pollination, which enhances both fruit size and overall productivity.





FERTILISING + CARE

Blueberries have very specific nutrient requirements and are particularly sensitive to over-fertilisation, especially with alkaline or animal-based products.

Careful nutrient management is essential to support healthy growth, fruit development, and long-term plant productivity.

Initial soil preparation should include the incorporation of acidic organic materials such as peat, pine bark, or composted sawdust. These help to maintain the low pH levels blueberries require (4.5–5.5) and improve soil structure. If pH levels are too high, sulphur or acidifying fertilisers may be used to adjust the soil prior to planting.

Ongoing fertilisation should be based on soil test results and tailored to the plant's seasonal needs.

As a general guide, each plant requires:

- > **Nitrogen:** 40–60 g per year, split between spring and summer applications to support leaf and shoot growth.
- > **Phosphorus and Potassium:** Applied in moderate amounts, depending on soil test results, to support root development and fruiting.
- > **Iron and Magnesium:** Should be monitored closely, especially in soils with higher pH, as deficiencies can impact plant health and fruit quality.

Use acid-forming fertilisers such as ammonium sulphate to maintain soil acidity. Avoid using animal manures, lime-based products, or alkaline composts, as these can raise soil pH and reduce nutrient uptake.

Mulch management is also critical. A 10–15 cm layer of pine bark or sawdust mulch should be maintained and topped up annually. This helps suppress weeds, retain moisture, and preserve soil acidity.

Irrigation is essential, particularly during dry periods. Blueberries have shallow root systems and require consistent moisture to avoid stress and ensure proper fruit sizing. Drip or micro-sprinkler systems are recommended to deliver water efficiently while minimising disease risk.



A close-up photograph of blueberry bushes with green leaves and small, dark blue berries. The image is slightly blurred in the background, focusing on the foreground plants.

WEED, PEST + DISEASE MANAGEMENT

Blueberries are vulnerable to weed competition due to their shallow root systems and relatively slow early growth.

Weeds not only compete for nutrients and moisture but can also harbour pests and diseases that impact plant health and fruit quality.

Weed control should begin at planting and continue throughout the life of the crop. The primary method of suppression is through the use of mulch, ideally pine bark or sawdust, which helps retain soil moisture, regulate temperature, and reduce weed emergence. However, care should be taken to avoid disturbing the root zone, as blueberries are sensitive to mechanical cultivation. Spot spraying or hand weeding is recommended where necessary, but growers should take precautions to avoid herbicide drift, which can damage sensitive foliage.

Pest management is an ongoing requirement for commercial blueberry production. The most common pest pressure comes from birds, which can cause significant crop loss. Protective netting is considered essential for commercial operations to prevent damage during ripening.



Other pests to monitor include:

- > **Thrips and leafroller caterpillars:** These can damage leaves and developing fruit. Use monitoring traps and apply treatment only if pest thresholds are exceeded.
- > **Scale insects and aphids:** These pests can transmit viruses and reduce plant vigour. They are best managed with horticultural oils or approved insecticides, applied according to label instructions and integrated pest management (IPM) principles.

Disease management is also critical, particularly in wet or humid conditions.

The most common diseases affecting blueberries in the Manawatū region include:

- > **Botrytis (grey mould):** Often appears during wet springs and fruiting periods. Good airflow, proper pruning, and timely fungicide applications can help reduce incidence.
- > **Phytophthora root rot:** A serious soil-borne disease that thrives in poorly drained soils. Prevention is key – raised beds and good drainage are essential.
- > **Mummy berry and bacterial blights:** While less common, these diseases can still impact yield and should be monitored, especially in seasons with high humidity or rainfall.

Regular monitoring, preventative practices, and timely interventions are essential to maintaining healthy, productive blueberry plants.





COMPLIANCE

For growers aiming to supply fresh blueberries to export markets or domestic supermarkets, it is essential to meet strict compliance standards.

These standards ensure food safety, traceability, and market access, and are often a prerequisite for entering commercial supply chains.

Key compliance considerations include:

- > **Certification:** Most commercial buyers require growers to be certified under NZGAP or GLOBALG.A.P. These programmes verify that good agricultural practices are being followed, including environmental management, worker welfare, and food safety.
- > **Spray diary and withholding periods:** Accurate record-keeping of all chemical applications is essential. This includes maintaining a spray diary and adhering to withholding periods to ensure residue compliance.
- > **Water and food safety testing:** Water used for irrigation and post-harvest handling must meet food safety standards. Regular testing is required to verify that water sources are free from contaminants.
- > **Post-harvest hygiene and traceability:** Growers must implement clean handling practices and maintain traceability systems that can track fruit from the orchard to the final market. This is critical for both food safety and market assurance.
- > **Export requirements:** Growers targeting export markets must comply with MPI phytosanitary regulations, which may include orchard registration, pest monitoring, and additional documentation.

Meeting these compliance requirements not only protects consumer health but also strengthens market access and reputation for New Zealand-grown blueberries.





HARVESTING + STORAGE

Harvest timing for blueberries depends on the variety, climate conditions, and seasonal variation.

Growers should monitor plantings closely during the lead-up to harvest to ensure fruit is picked at peak ripeness and quality.

In the Manawatū region, the general harvest calendar is as follows:

- > **Northern Highbush varieties:** November to January
- > **Rabbiteye varieties:** January to March

Blueberries do not ripen all at once and are typically harvested multiple times over a 4–8 week period. This staggered harvest allows for optimal fruit quality and size but requires careful planning and labour management.

Harvesting method depends on the intended market:

- > Fresh market fruit is almost exclusively hand-picked to preserve berry integrity and minimise bruising.

- > Processing berries may be mechanically harvested, particularly in larger operations, though this can result in more variable fruit quality.

Once harvested, post-harvest handling is critical to maintain fruit quality and shelf life:

- > Cool fruit immediately, ideally to below 4°C, to slow respiration and reduce spoilage.
- > Grade, sort, and pack within 24 hours of harvest to maintain freshness and meet market standards.
- > Store in refrigerated conditions for up to 2–4 weeks, depending on variety and handling.

Growers targeting export markets must ensure fruit meets strict standards for size, firmness, and absence of defects. These requirements are essential for maintaining product quality during transit and ensuring compliance with international market expectations.





FINANCIAL INFORMATION

Growing blueberries commercially in the Manawatū region presents a long-term investment opportunity for growers seeking to diversify into perennial fruit crops.

While blueberries require careful site setup and ongoing management, they offer strong returns, extended harvest windows, and a productive lifespan of over 20 years.

Yields and production:

Blueberry yield is influenced by variety, soil health, irrigation, and seasonal conditions.

While exact figures vary, well managed crops can produce:

- > **Northern Highbush varieties:** 10–15 tonnes per hectare at full maturity
- > **Rabbiteye varieties:** Up to 20 tonnes per hectare under optimal conditions

Initial harvests typically begin in Year 3, with full production reached by Year 5–6. As a perennial crop, yield improves over time with proper pruning, nutrition, and pest management.



Indicative market prices (2024-25):

Blueberries are graded and priced based on quality, timing, and market channel.

The following ranges offer a general guide:

- > **Fresh market** (premium early-season fruit): \$10.00–\$20.00/kg
- > **Processed or second-grade fruit:** \$3.00–\$6.00/kg
- > **Export premiums:** Available for fruit meeting strict specifications for size, firmness, and defect-free presentation.

Direct-to-consumer sales, boutique retailers, and farmers markets may offer higher margins, particularly for well-presented, early-season fruit.

Establishment costs: Initial setup costs for blueberry production are higher than many annual crops due to infrastructure requirements.

Estimated costs range from \$40,000 to \$60,000 per hectare, depending on:

- > Site preparation and soil amendments
- > Irrigation systems (drip or micro-sprinkler)
- > Raised beds and mulching materials
- > Planting stock and variety selection
- > Netting and bird protection infrastructure

Despite the upfront investment, blueberries offer a 20+ year productive lifespan, making them a valuable long-term asset for diversified farm systems.



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