

GREEN PEAS

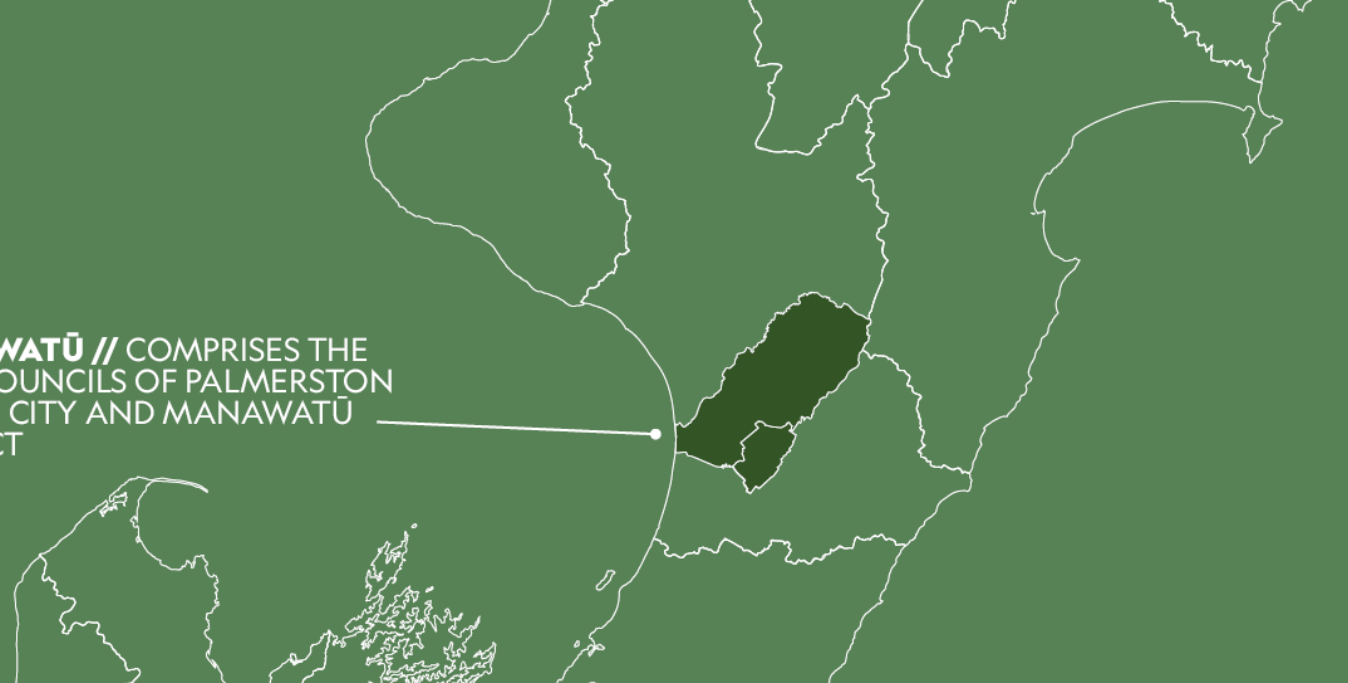
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MANAWATŪ

IN MANAWATŪ

A GROWER GUIDE

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MANAWATŪ // COMPRISES THE
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DISTRICT

GREEN PEAS // A RESILIENT, HIGH-YIELDING CROP OFFERING SHORT-CYCLE RETURNS

Green peas are a resilient crop offering high yields under good management and are well suited to autumn or spring cropping in the Manawātū region. With careful site selection and management, they offer strong returns through both fresh and processed markets, including export opportunities.

The following guide provides detailed information on the commercial production of green peas in the Manawātū. Developed by the Central Economic Development Agency, this guide was created as part of the [Manawātū Regional Food Strategy](#).

CONTENTS

- > Suitable varieties and characteristics
- > Selecting a site
- > Planting instructions
- > Fertilising and care
- > Weed, pest, and disease management
- > Compliance
- > Harvesting and storage
- > Financial information

SUITABLE GREEN PEA VARIETIES + CHARACTERISTICS

Green peas are a cool-season crop well suited to the temperate climate of the Manawātū region, particularly during the shoulder seasons of autumn to early winter and late winter to spring. These conditions support strong growth and reliable yields for commercial production.

Climate considerations for the region are further outlined in the Diversification of Farm Systems report.

Choosing the type of pea and variety is an important decision, as each offers different characteristics that will influence planting systems, harvest timing, and market suitability.

CHARACTERISTICS OF GREEN PEAS

- > **Maturity:** Most shelling varieties mature within 60–80 days, allowing for flexible planting schedules.
- > **Growth habit:** Peas may be bush (determinate) or vining (indeterminate). Bush types are compact and easier to manage, especially in mechanised systems.

- > **Disease resistance:** Key for avoiding common issues such as powdery mildew, root rot, and fusarium wilt. Selecting resistant varieties can reduce crop loss and input costs.

While some varieties may possess multiple of these characteristics, they may also be influenced by local soil conditions, planting density, and harvesting methods.

There are three main types of green peas, each offering their own advantages:

- > **Shelling peas (garden peas):** Grown for their sweet green seeds. These are the most common type used in commercial production.
- > **Snow peas:** Edible flat pods harvested before seeds develop. Popular for fresh market sales.
- > **Sugar snap peas:** Fleshy, sweet edible pods with full-size peas inside. Suitable for both fresh and processing markets.



Green peas types and varieties likely to suit the Manawatū region include:

GREENFEST:

Shelling – Mid Season – Large Sweet Peas

Greenfeast is a popular shelling variety known for its large, sweet peas. It performs well in Manawatū's climate and is favoured for both fresh consumption and processing.

BOLERO:

Shelling – Mid Season – Disease Resistant

Bolero is a high-yielding shelling pea with strong resistance to common diseases. Its reliability and vigour make it a good choice for commercial growers seeking consistent performance.

ONWARD:

Shelling – Mid Season – Bush Type

Onward is a compact bush variety that suits mechanised systems and is well regarded for its performance in both fresh and processing markets.

OREGON SUGAR POD II:

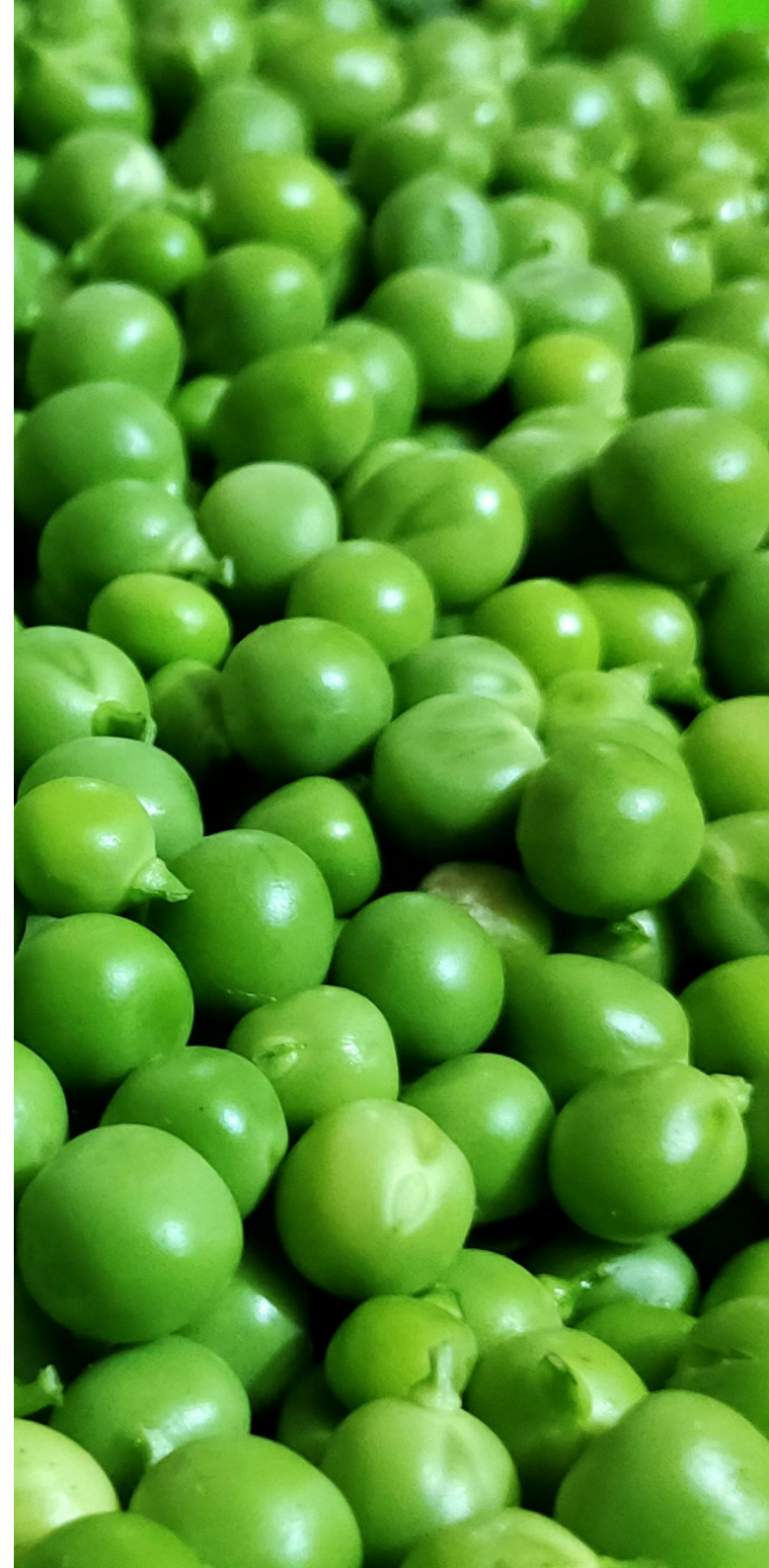
Snow Pea – Early Season – Disease Resistant

Oregon Sugar Pod II is a snow pea variety with strong disease resistance. Its flat edible pods are ideal for fresh market sales and early season planting.

SUGAR SNAP:

Snap Pea – Late Season – Vining Type

Sugar Snap is a vigorous vining pea with sweet, edible pods. It is suitable for trellised systems and offers high market appeal due to its flavour and texture.





SELECTING A SITE

Before selecting a site for green pea production, it is important to understand the conditions that will support optimal growth and yield in the Manawatū region.

Green peas require a well-drained, fertile loamy soil with a pH range of 6.0–7.0. These soil conditions promote strong root development and healthy plant growth. Peas are particularly sensitive to waterlogged or compacted soils, especially during germination and early growth stages. Poor drainage can lead to root diseases and reduced plant vigour.

To minimise disease risk, choose a site with good air circulation and avoid planting in areas where other legumes have been grown in the past three years. This helps prevent the buildup of soil-borne diseases such as fusarium wilt and root rot.

Green peas thrive in cooler temperatures ranging from 10–20°C and can tolerate light frosts. These characteristics make them well suited to autumn or spring cropping in the Manawatū region. Selecting a site that supports this temperature range will help ensure consistent germination and flowering, leading to a successful harvest.





PLANTING INSTRUCTIONS

To achieve optimal results when growing green peas in the Manawatū region, careful attention should be paid to both timing and soil preparation. Green peas are a cool-season crop and perform best when planted during periods that avoid extreme heat or prolonged wet conditions.

Timing:

Green peas can be grown as either an autumn or spring crop depending on the desired harvest window and local climate conditions.

- > **Autumn crop:** Sow from mid-February to late March
- > **Spring crop:** Sow from late July to September

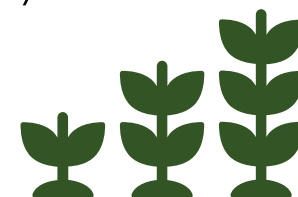
Soil temperature should be at least 5–8°C to support germination. For early crops, ensure the soil is sufficiently dry to avoid seed rot and poor emergence.

Soil preparation and sowing:

Green peas require a friable, well-drained loamy soil to allow for root development and nutrient uptake. Prior to sowing, loosen the soil to reduce compaction and improve aeration. Avoid turning the soil over completely, as this can disrupt the natural layering of the soil profile.

- > Seeds should be direct sown at a depth of 3–5 cm
- > Spacing within the row should be 3–5 cm apart
- > Row spacing should range from 30–60 cm depending on the variety and equipment used.
- > Wider spacing may be beneficial for vining types or where trellising is required.
- > For vining varieties, trellising or netting should be installed at planting to support vertical growth and improve air circulation.

To enhance nitrogen fixation and reduce fertiliser requirements, seeds should be inoculated with rhizobium bacteria if it is not already present in the soil. This step is particularly important in fields where legumes have not been grown recently.





FERTILISING + CARE

Green peas are legumes and have the natural ability to fix nitrogen from the atmosphere through a symbiotic relationship with rhizobium bacteria. This significantly reduces the need for nitrogen fertiliser, especially when inoculation is successful.

However, for optimal growth and pod development, peas still require adequate levels of phosphorus, potassium, and sulphur.

To support healthy root systems and maximise pod yield, growers should consider a balanced fertilisation approach tailored to soil conditions and crop stage.

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

General fertiliser guide (per hectare):

- > **Nitrogen:** 20–30 kg – only recommended at planting if soils are nutrient-poor or inoculation has not occurred.
- > **Phosphorus:** 40–60 kg – essential for root establishment and early growth.
- > **Potassium:** 80–100 kg – supports pod formation and overall plant health.
- > **Sulphur:** 20–30 kg – aids in protein synthesis and enzyme function.

It is important to avoid excessive nitrogen application, as this can lead to lush vegetative growth at the expense of pod production. Monitoring soil nutrient levels and adjusting inputs accordingly will help maintain a balanced crop.

Irrigation should be moderate and consistent. Excess moisture, particularly during flowering and pod fill, can negatively impact pod quality and increase the risk of disease. Maintaining optimal soil moisture without saturation is key to producing high-quality peas.



WEED, PEST + DISEASE MANAGEMENT

Green peas are particularly vulnerable during early growth stages and weed competition can significantly impact plant health and yield.

Due to their relatively delicate seedlings and shallow root systems, it is important to manage weeds proactively to ensure strong establishment.

Weed management:

Weeds compete for nutrients, light, and moisture, and can quickly overtake young pea plants.

Growers may consider the following strategies:

- > **Pre-emergence herbicides:** Use only those registered for pea crops. Always check product labels and local regulations before application.
- > **Light cultivation or hoeing:** Effective for early-stage weed control, especially in small-scale or organic systems.
- > **Mulching:** Suitable for small-scale systems to suppress weeds and retain soil moisture. Care should be taken to avoid excessive moisture buildup.
- > **Cover cropping and rotation:** Helps reduce weed seed banks and improves soil structure over time.

Regular monitoring and timely intervention are key to maintaining a weed-free environment during the critical early growth period.



Pest Management:

Several pests are known to affect green peas in the Manawatū region.

These include:

- > **Pea weevils:** Feed on foliage and seeds. Crop rotation and seed treatments are effective preventative measures.
- > **Aphids:** Can cause stunted growth and transmit viruses. Control measures should be implemented if infestations build.
- > **Thrips:** May reduce pod quality in some seasons. Monitoring and targeted control may be necessary depending on seasonal pressure.

Preventative strategies such as crop rotation, seed hygiene, and maintaining plant health can reduce pest pressure and minimise the need for chemical intervention.

Disease management:

Green peas are susceptible to a range of fungal and soil-borne diseases.

Common issues include:

- > **Powdery mildew:** Often seen in late-season crops. Planting resistant varieties and ensuring good airflow can help mitigate risk.
- > **Downy mildew:** More frequent in cool, damp conditions. Avoid overhead irrigation and ensure proper spacing.
- > **Root rots** (*Fusarium*, *Pythium*): Typically caused by waterlogged soils. Good drainage and crop rotation are essential.
- > **Ascochyta blight:** Controlled through seed hygiene and rotation. Avoid planting in areas with a history of legume crops.

Maintaining healthy soil, monitoring environmental conditions, and selecting resistant varieties are all important steps in managing disease risk.





COMPLIANCE

Green pea growers in the Manawatū region who are supplying into commercial processing, export, or retail markets must be aware of the compliance requirements.

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

Key compliance considerations include:

While peas are not subject to the same level of regulation as some export crops, growers entering commercial supply chains are expected to meet industry standards and regulatory obligations. These include:

- > **Certification schemes:** Growers should be certified under NZGAP or an equivalent assurance programme. This supports traceability, environmental stewardship, and food safety compliance.
- > **Food safety regulations:** All operations must adhere to Ministry for Primary Industries (MPI) food safety requirements, including hygiene standards during harvest and post-harvest handling.



- > **Spray and fertiliser records:** Full documentation of agrichemical and fertiliser applications must be maintained. This includes product names, application rates, dates, and pre-harvest intervals. These records are essential for audit readiness and residue compliance.
- > **Pesticide use:** Only registered pesticides may be used, and all label instructions and withholding periods must be strictly followed to ensure food safety and market eligibility.
- > **Grading standards:** For export and supermarket channels, peas may need to meet specific grading criteria based on pod size, uniformity, and visual appearance. This may require additional sorting or quality control steps prior to dispatch.

Growers are encouraged to engage with processors, exporters, and industry bodies to stay informed of evolving compliance expectations. As demand for locally grown peas increases, maintaining high standards will support both market access and consumer confidence.





HARVESTING + STORAGE

Harvesting timeframes for green peas depend on the variety, temperature, and seasonal conditions.

As with other cool-season crops, growers in the Manawatū region should monitor plantings closely as flowering begins, as pod maturity can progress rapidly depending on climate.

Green peas are typically ready for harvest 18–24 days after flowering, with the ideal window being when pods are fully developed but before sugars begin converting to starch. Harvesting too late can result in starchy, tough pods with reduced market appeal, while harvesting too early may lead to underdeveloped peas lacking sweetness and texture.

Harvesting tips:

- > **Time of day:** Harvest early in the morning when pods are crisp and cool. This helps preserve flavour and reduces post-harvest respiration.
- > **Pod feel:** Pods should feel full and firm but not tough. A gentle squeeze should indicate plumpness without resistance.
- > **Method:** For fresh market peas, hand-picking is preferred to maintain quality and reduce damage. For processing crops,

mechanical harvesting is standard and should be timed precisely to avoid over-mature pods.

Snow peas and sugar snap peas are harvested earlier than shelling types, typically when pods are still flat and tender. These varieties require daily checks once flowering begins to ensure optimal quality and texture.

Post-harvest handling:

Green peas lose sweetness rapidly after harvest due to sugar conversion.

To preserve flavour and freshness:

- > **Cooling:** Rapid cooling to 0–2°C is critical immediately after harvest.
- > **Humidity:** Store peas at 95–98% relative humidity to prevent dehydration and maintain pod integrity.

Growers should avoid delays between harvest and cooling, as even short periods at ambient temperatures can significantly impact quality. For larger operations, pre-cooling facilities or mobile chillers may be necessary to meet market standards.



FINANCIAL INFORMATION

Growing green peas commercially in the Manawatū region offers a promising opportunity for growers seeking short-cycle returns and rotational flexibility.

With a relatively fast growing window and compatibility with brassicas, cereals, and summer crops, peas can be a valuable addition to diversified farm systems.

Yields and production:

Green pea yields vary depending on the variety, seasonal conditions, and management practices

Indicative ranges are:

- > **Fresh market peas:** 3–6 tonnes per hectare
- > **Processing peas:** 6–10 tonnes per hectare

Snow and sugar snap peas, while typically lower yielding, command higher prices due to their premium market positioning.

Indicative market prices:

Pricing for green peas is influenced by market channel, quality,

and contract terms.

The following ranges offer a general guide:

- > **Fresh market peas:** \$2.00–\$5.00/kg
- > **Processing peas:** \$250–\$600/tonne (contract dependent)
- > **Snow/sugar snap peas (fresh):** \$6.00–\$10.00/kg

Fresh market crops often require more labour due to hand-picking and quality control, but this is offset by higher retail prices and direct-to-consumer opportunities. Snow and sugar snap peas are well suited to boutique retailers and farmers markets where presentation and flavour are highly valued.

Rotational and operational benefits:

Peas integrate well into crop rotations, particularly following or preceding brassicas and cereals. Their nitrogen-fixing ability can improve soil health and reduce fertiliser requirements for subsequent crops. Additionally, their short growing season allows for flexible scheduling and efficient land use.



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