



Reviewed by Dan Drost, June 2010

# New Zealand Spinach in the Garden

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## Summary

New Zealand spinach is a warm season alternative to regular spinach that does well in hot, dry conditions. Soak seeds in water for 24 hours prior to planting to hasten germination. Seeds should not be planted directly outside until after the last frost date, or start transplants inside 3-4 weeks prior to the last frost. Plant seeds ½ inch deep in loose, fertile soil that has had organic matter incorporated prior to planting. Space plants 3 feet between rows, and every 12 inch after thinning within rows. Although New Zealand spinach is drought tolerant, water consistently for the best flavor. Fertilize frequently with a high nitrogen fertilizer. Mulches and row covers can help in starting plants outside earlier. Mulches also help with weed control and retaining soil moisture. Leaves should be harvested frequently to encourage new, lush growth. Cut the tips and eat raw or cooked.

## Recommended Seed Varieties

Most sources offer only the generic species, *Tetragonia tetragonoides*. However, occasionally the variety Maori is listed.

## How to Grow

**Soils:** New Zealand spinach prefers well-drained, sandy soils that are rich in organic matter, with a pH ranging from 6.8 to 7.0. However, in Utah's typical alkaline soils, New Zealand spinach will still grow well.

**Soil Preparation:** Before planting, incorporate up to 4 inches of well-composted organic matter into the top 6 inches of the soil. Fertilizer should be broadcast and worked into the soil prior to seeding, at a rate of 3 lbs per 100 ft<sup>2</sup> of 10-10-10 fertilizer. If fertilizer is banded at seeding it should be placed along each side of the rows 2-3 inches below the level of the

seed and 6 inches to the side of the row. Sidedress with two or more applications of 0.3 oz per 10 ft of row of 10-10-10 fertilizer.

### Plants:

Seeds can be either directly sown after frost danger has passed; or they may be started inside 3-4 weeks before the last frost date, then transplanted after the danger of frost has passed. New Zealand spinach germinates slowly, but soaking the seeds in water for 24 hours before planting hastens germination. Seeds take up to 2 or 3 weeks to emerge and do not emerge uniformly. Seedlings can be transplanted when they are 1-2 inches tall.



**Planting and Spacing:** Seeds should be planted ½ inch deep in fine soil. The soil should be kept moist until the seedlings begin to emerge. Plant in rows 3 feet apart, with seeds 2 inches apart within the row. When plants are 1-2 inches tall, thin to 12 inches apart.

**Mulches:** Mulches help retain soil moisture and suppress weeds. Plastic is a good mulch because it can increase the soil temperature and make it possible to plant at an earlier date. Lay black plastic down in rows, covering the edges with soil, then punch holes in the plastic and plant seeds or transplant previously started plants. Grass clippings, leaves, or shredded newspaper are other mulch options.

**Row Covers:** Hot caps, plastic tunnels, and fabric covers can protect seedlings and transplants from cool air temperatures. Row covers make it possible to place plants outside before the last frost date, thereby

extending the harvest season because of getting an early start.

**Water:** Although the flavor is best with consistent moisture, New Zealand spinach will still do well with little water without causing plants to bolt or producing a bitter taste. New Zealand spinach is heat and drought tolerant and does well in the warm summer/fall months when regular spinach will not produce.

**Fertilization:** New Zealand spinach needs generous fertilization, otherwise it can seed early. Fertilizing monthly at the highest rate will produce the best results. Apply 3 pounds of 10-10-10 per 100 ft<sup>2</sup>.

## Problems

**Weeds:** Weeds can be a problem when plants are first getting established. Plastic mulches can greatly reduce the competition of weeds. New Zealand spinach has a spreading habit and will fill in well, choking out most weeds.

**Insects and Diseases:** New Zealand Spinach has very good disease and insect resistance. Leaf miners are a common problem in growing regular spinach, so New Zealand spinach is recommended as a resistant alternative. It has been found that various chewing beetles may feed on the leaves, causing small, round holes to appear. Generally plants grow rapidly enough that control is not necessary.

## Harvest and Storage

From seed to harvest takes 50-70 days. Only the young leaves and tips are gathered for use. Regular trimming and good fertilization of the plants encourages lush growth. Cut the tips back at 4 inches and allow new leaves to replace the older leaves.

New Zealand spinach can be eaten raw or steamed. Before the next harvest, store at 35° F and 95-100% humidity for 2-3 weeks. The seeds can be saved for up to 5 years.

## Productivity

Plant 2-3 plants per person for fresh use and an additional 6-8 plants for canning.

## Nutrition

New Zealand spinach is valued because of its high vitamin A, vitamin B1, vitamin B2, and vitamin C content. It is low in fat and fiber content. New Zealand spinach does have a high oxalate content, which can be dangerous at high concentrations. It is recommended that the leaves be blanched for 3 minutes, the water disposed of, and then the greens refreshed in iced water before consuming. However, many still use it raw as a salad green.

## Frequently Asked Questions

***Q. What are oxalates? Can they really harm me? Is New Zealand spinach a bad choice to plant?***

New Zealand spinach contains antioxidant carotenoids that are responsible for much of its nutrition. Because of the form they are in, it makes it harder for the body to digest them. By blanching the leaves, the nutrients can be converted to a form that the body can easily absorb.

***Q. I've heard New Zealand spinach referred to by many names. What is a name I can easily recognize?*** Referring to plants by their common names can be confusing. New Zealand spinach is also referred to as Warrigal greens or Native Australian Bushtucker. It is better to use its botanical name, *Tetragonia tetragonoides*. New Zealand spinach was formerly named *Tetragonia expansar*, but has been recently reclassified and is now referred to as *Tetragonia tetragonoides*.

***Q. Why plant New Zealand spinach if it looks and tastes like regular spinach?*** New Zealand spinach is a warm season vegetable that grows well in hot weather and dry conditions. Regular spinach goes to seed and becomes bitter during warm summer months. Spinach also has many disease and pest problems, while New Zealand spinach is relatively pest and disease free.

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