

Lyis: Wonderberry (*Solanum retroflexum*)

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Wonderberry (*Solanum retroflexum*)

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What Is Wonderberry?

First selected by Luther Burbank in California and now recognized as *Solanum retroflexum*, wonderberry is a thornless shrub bearing clusters of glossy black “tomato” fruits (8–12 mm). Ripening July–October, they’re eaten fresh or made into jams, pies, smoothies, and nutrient-rich syrups.

Key Features

- **Fruit:** Sweet-tart, deep black, July–October.
- **Habit:** 60–90 cm tall, 40–60 cm wide.
- **Self-fertile:** No pollinator needed—flowers attract bees & hoverflies.
- **Brain-boosting:** Anthocyanin levels *exceed* blueberries, supporting memory and neuroprotection.

Anthocyanin Benefits

Studies on blueberries link anthocyanins to improved cognitive function and circulation. Wonderberries (**Solanum retroflexum**) are among the richest sources of anthocyanins

— the compounds linked to improved brain health and cellular protection.

- Compared to cultivated blueberries, wonderberries may contain **2–3× more** anthocyanins per gram.
- Compared to wild blueberries, they are roughly equivalent or slightly higher in anthocyanin content.

This makes wonderberries a powerful antioxidant source — especially for window-sill or container gardeners looking for high nutrient density in small spaces.

1 Hardiness and Overwintering

Wonderberries (*Solanum retroflexum*) are frost-sensitive and best treated as annuals in most temperate regions, including Ontario. They are much easier to grow than blueberries, particularly in the Grey-Bruce region, where soils tend to be neutral to alkaline and thus unsuitable for true blueberries, which require strongly acidic conditions. Wonderberries, on the other hand, thrive in these more common soil types and do not need specialized amendments.

They are hardy only in Zones 9b–11, where minimum temperatures remain above -3°C . However, in areas as cool as Zone 6, including Owen Sound, plants may ****readily self-seed**** if allowed to ripen fruit and drop seed before frost, especially in mulched or sheltered microclimates.

- **Hardiness Zone:** 9b–11 (–3 °C to +10 °C); will not survive winter outdoors in Zone 6 or colder.
- **Self-Seeding Potential:** High. Wonderberries often reseed successfully in Zones 6–8 if berries are allowed to ripen and drop, and if winter conditions are not excessively wet.
- **Frost Sensitivity:** Killed by light frost; do not transplant outdoors until all danger of frost has passed.
- **Outdoor Growing in Owen Sound:** Sow or transplant after last frost (typically late May); harvest continues until first hard frost. Let a few berries fall to encourage reseeding.
- **Overwintering in Pots:** Bring potted plants (e.g., in 2 L or similar containers) indoors before frost. Keep in a sunny window or cool greenhouse. Fruit production may slow, but plants can survive winter and provide early spring cuttings or seed.
- **Greenhouse Option:** In an unheated greenhouse, plants may survive until late fall; survival into winter may require supplemental heating.

In short, Wonderberries are a resilient and low-maintenance alternative to blueberries in non-acidic soils. While they behave as annuals in cold climates, their prolific self-seeding habit makes them functionally perennial for many gardeners. Those in Zone 5 or colder should save seed in the fall and re-sow in spring to maintain continuity.

Container Culture Options

A. 2 L Pot

- **Mix:** 70 % loam + 30 % compost.
- **Yield:** 50–100 berries/season (5–10 clusters).
- **Care:** Full sun, 1 L water weekly, monthly feed.
- **Overwinter:** Place plants in the sunniest window available or under full-spectrum grow lights for best fruiting. Bright cool spot indoors; keep moist at 10–15 °C.

B. 5–7 L Pot

- **Mix:** 85 % loam + 15 % compost.
- **Yield:** 200–300 berries/season (20–30 clusters).
- **Care:** Full sun, 2 L water weekly, monthly feed.
- **Overwinter:** As above—larger root mass, more stable.

2 Indoor Pollination

When grown indoors, Wonderberries (*Solanum retroflexum*) do not have access to wind or outdoor pollinators such as bees. Fortunately, they are self-fertile and relatively easy to hand-pollinate. With just a little assistance, indoor plants can produce abundant berries.

Pollination Tips

- **Use a soft brush or cotton swab:** Gently transfer pollen between flowers using a clean, dry paintbrush or cotton swab. Swirl inside each flower to collect and deposit pollen.
- **Timing:** Pollinate during the morning or midday when flowers are fully open and fresh. Repeat every 1–2 days during peak flowering for best results.
- **Shake the plant:** Lightly tapping or shaking the plant can help dislodge pollen and improve fruit set, especially when many flowers are present.
- **Airflow helps:** A small fan can mimic natural airflow and may assist in pollen transfer.

Option 3: Planting Outdoors

- **Site:** Full sun; well-drained loam, pH 6.0–7.0.
- **Prep:** Incorporate 5 % compost to 20 cm depth; mulch 5 cm.
- **Spacing:** 60 cm apart, rows 75 cm.
- **Protection:** Mulch 10 cm in Zone 5; in colder areas lift pots or cover plants.
- **Yield:** 500–800 berries/season (50–80 clusters) on established shrubs.

Pest & Disease

Generally trouble-free. Manage slugs with traps; spray aphids with horticultural oil. Ensure airflow to prevent mildew.

Harvest & Uses

- **Fresh:** Snack, salads, yogurt.
- **Jam & Syrup:** 250 mL berries + 50 mL maple syrup, simmer 10 min; strain for syrup or leave fruit for jam.
- **Baking:** Fold into muffins or pies for vibrant color.
- **Smoothies:** Blend berries with banana and yogurt for a brain-boosting drink.

3 Flavour and Culinary Uses

Wonderberries (*Solanum retroflexum*) have a unique and complex flavour profile that varies significantly depending on ripeness and preparation. The berries are deep purple-black when fully ripe and should only be eaten at this stage. Unripe berries may taste bitter or astringent and should not be consumed.

Fresh Eating: When fully ripe, some people enjoy Wonderberries fresh for their mildly sweet and earthy flavour, which can have subtle herbal or musky undertones. However, their complexity is not to everyone's liking in raw form.

Cooking Brings Out the Best: Most growers agree that Wonderberries are at their best when cooked. Heating enhances their natural sweetness, balances their complexity, and transforms the flavour into something more akin to blueberries or black currants.

4 Small Harvest Recipes

Many Wonderberry growers start with just a few berries from their windowsill plants. Here are small-batch recipes ideal for modest yields:

- **Mini Muffins:** Add 3–5 wonderberries per mini muffin for colour and nutrients.

- **Berry Yogurt Swirl:** Mash 1 tablespoon of berries and mix into yogurt with honey.
- **Oatmeal Topper:** Spoon mashed berries over warm porridge with nut butter or cinnamon.
- **Single-Serve Compote:** Gently simmer 2–3 tablespoons of berries with a splash of water and sweetener. Use on toast, pancakes, or rice pudding.
- **Smoothie Boost:** Blend 1 tablespoon of berries with banana and water or juice.
- **Fruit Tea:** Steep mashed berries and mint or lemon balm for a calming purple tea.
- **Mini Hand Pies:** Mix berries with chopped apple and bake in small pastry rounds.

Even a handful of berries can become a nutrient-dense treat.

Popular Recipes Include:

- **Wonderberry Jam or Syrup:** Simmer berries with a bit of water and maple syrup or honey. Optionally add lemon juice or spices like cinnamon or ginger. The resulting jam is rich in anthocyanins and delicious on toast or porridge.
- **Pie or Tart Filling:** Wonderberries can be combined with apples or rhubarb to make flavorful and nutritious pies.
- **Preserves and Freezing:** Cooked berries freeze well and can be preserved in jars without added pectin, due to their natural thickening properties when reduced.

Wonderberries are richer in anthocyanins than even blueberries, making them a superb brain-healthy food when consumed regularly. Anthocyanins are well-studied for their potential to improve memory and protect cognitive function over time.

Summary

Wonderberry (*Solanum retroflexum*), a Burbank creation, yields little black fruits richer in brain-healthy anthocyanins than blueberries. Grow in 2 L or 7 L pots—expect 50–100 vs. 200–300 berries—or plant outdoors in Zones 5–9 for 500–800 berries per season on mature shrubs.

Seed Saving & Propagation

1. Seed Saving:

- Allow berries to fully ripen until very soft.
- Crush and ferment in a closed jar for 24 h.

- Rinse seeds, dry 3–5 days in shade.
- Store in paper envelopes at 4 °C up to 2 years.

2. Growing from Seed:

- Sow fresh or stratified seeds on surface in seed-starting mix.
- Keep at 20–25 °C, evenly moist; germinates in 2–6 weeks.

3. Layering:

- Bend a low branch, wound underside, pin under 2 cm soil.
- Keep moist; detach layer after one season.