

Yarra Ranges Council Backyard Gardens for Harvest – Berries & Vines webinar

Angelo Eliades

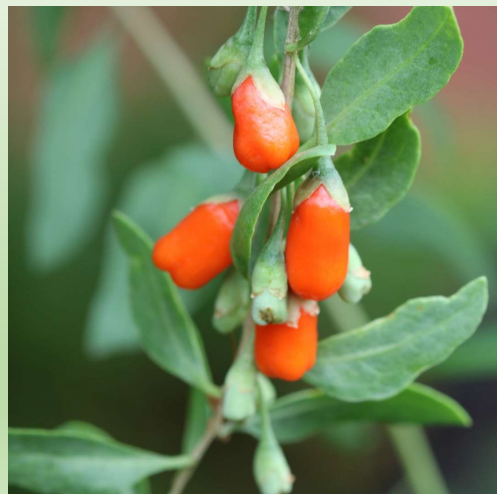
deepgreenpermaculture.com



© Deep Green Permaculture, 2021

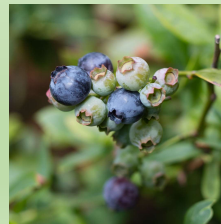
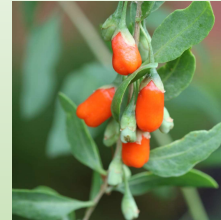
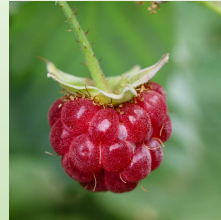
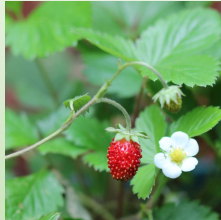
Topics for this Workshop

1. Varieties of fruiting vines & berries
2. Plant requirements
3. Training & spacing
4. Pruning



Varieties of Fruiting Vines & Berries

- Raspberries
- Bramble berries
- Shrub berries
- Kiwi fruit
- Grapes
- Passionfruit
- Strawberries
- Goji Berries
- and much more...



Raspberry Varieties

- Summer-bearing types
- Autumn-bearing types
- Everbearing types

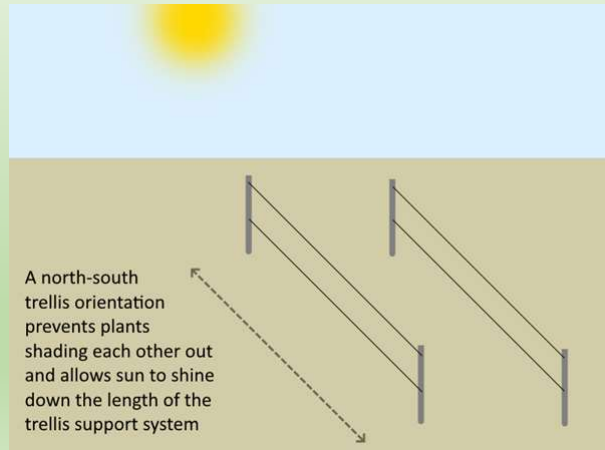
- Raspberries have long **upright** growing canes

- Are ***Rubus*** genus, just like blackberries.



Growing Raspberries

- Raspberries grow best in **well-drained, rich, acidic to neutral soil**.
- Plant in **rows running north-south** so plants receive even sunlight.
- Prefer morning and midday sun, protect from hot afternoon west sun!



Planting, Feeding and Mulching Raspberries

- Before planting, dig a trench to loosen the soil, mix in plenty of well-rotted compost or manure.
- Mulch berries well to keep roots cool, moist and to suppress weeds.
- Raspberries are heavy feeders, feed with blood and bone or well-rotted manure at the start of **spring** and **autumn**.



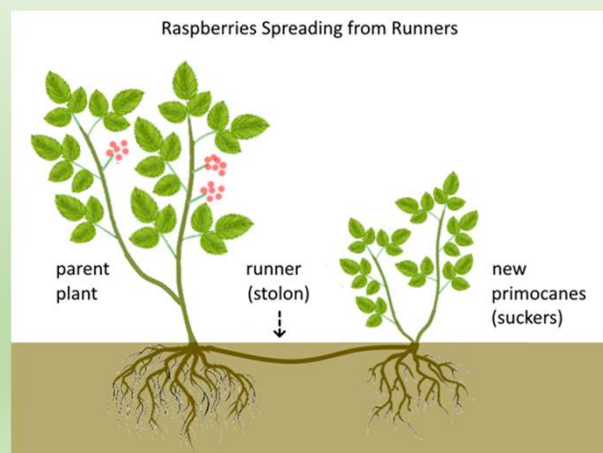
Raspberries – Soil Diseases

- Don't plant in areas where soil becomes waterlogged during the winter – **leads to root rot.**
- To avoid the risk of **Verticillium wilt** disease, don't plant in areas where ***Solanaceae*** family plants (*tomatoes, capsicum, eggplants, etc*) or **strawberries** have been grown in the past three years.



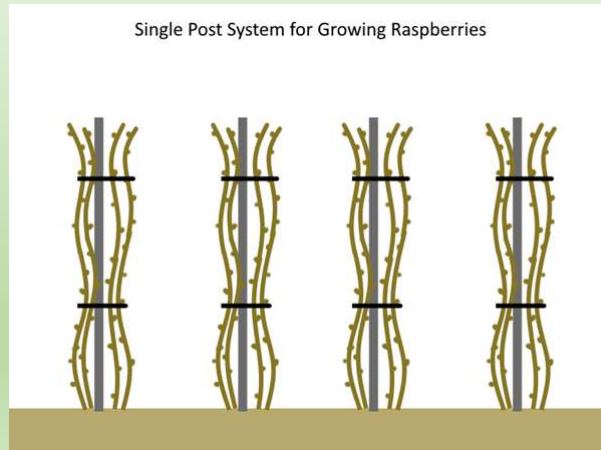
Controlling Raspberries

- **Raspberries will sucker!**
- To control suckers, use root barriers, or dig them up and replant in the right place.
- Wear gloves when pulling up raspberry suckers - stems covered in fine thorns.



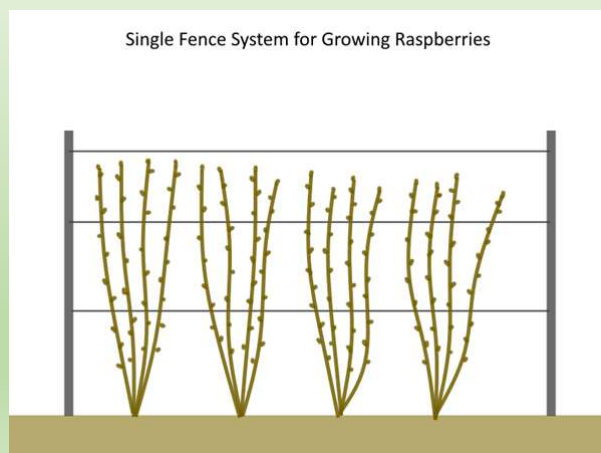
Training Raspberries - Single Post System

- Each plant is tied to a single post, with 12 canes per post.
- Posts are 1.5 - 2m tall above the ground, with 60cm driven below the ground.



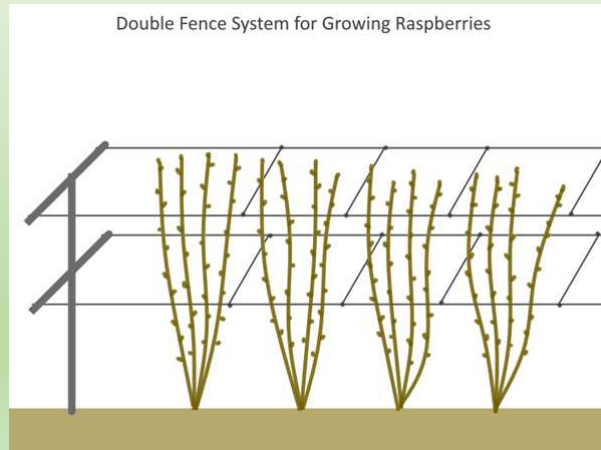
Training Raspberries - Single Fence System

- Posts are 1.5 - 2m tall above the ground, with 60cm driven below the ground.
- Posts spaced 3m apart, with galvanized wire stretched between posts at 2.5, 3.5 and 5.5 ft (75, 105, 165cm).



Training Raspberries - Double Fence System

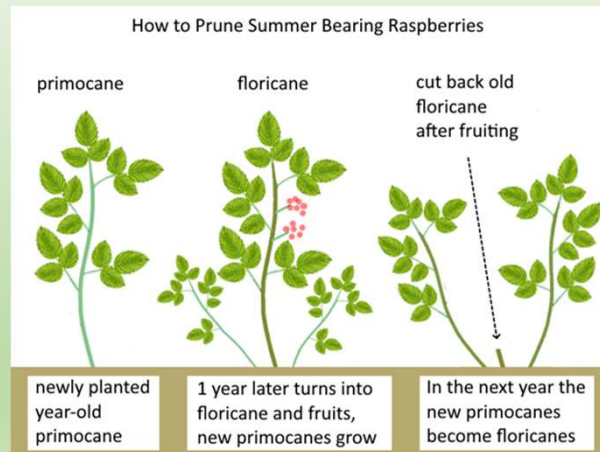
- Posts are 1.5 - 2m tall above the ground, with 60cm driven below the ground.
- Cross bars 2 ft (60cm) long fixed to posts at 1m and 1.5m height.
- Long wires stretched from ends of cross bars
- Short wires stretched as cross ties every 2 ft (60cm) along wires.



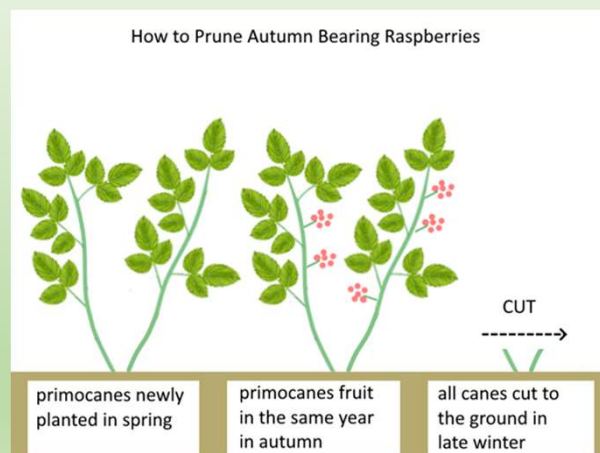
Pruning Raspberries

- **Summer bearing raspberries** fruit on **floricanes** (fruiting canes) formed in the second year.
- **Autumn bearing raspberries** fruit on **primocanes** (new canes) produced in the same year.
- **Everbearing raspberries** fruit on the tips of first-year primocanes and on the lower portion of second-year floricanes.
- New **primocanes** grow for a year, then turn into **floricanes** which flower and fruit in the second year.
- After fruiting, raspberry canes are cut to the ground.

Summer Bearing Raspberries



Autumn Bearing Raspberries



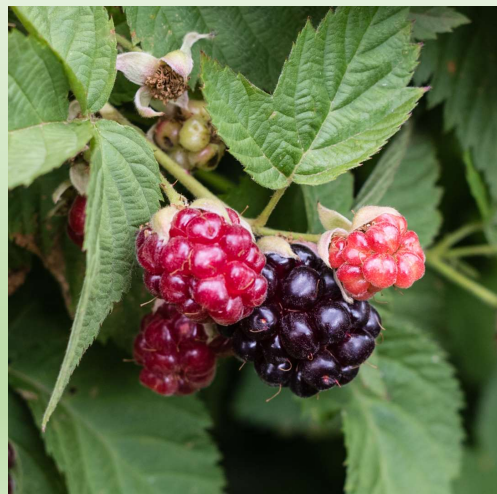
Ever-Bearing Raspberries

- **Everbearing raspberries** are pruned same way as **summer bearing** varieties, using two-year cycle.
- The only difference is that **pruning is carried out in winter**, after the second autumn crop has finished.



Brambleberries

- Blackberries & blackberry hybrids
 - Thornless blackberries
 - Loganberry
 - Boysenberry
 - Youngberry
 - Tayberry
 - Silvanberry
 - Marionberry
 - Lawtonberry
 - and many more
- All ***Rubus*** genus, like raspberries.



Brambleberries – Thorny or Thornless?

- Most brambles have thorns, some varieties, i.e. Silvanberry, very thorny.
- Thornless youngberries and loganberries available, as well as blackberries Chester (vigorous) or Waldo (compact).
- Thornless varieties less productive.
- Thornless canes can 'revert' back to thorny form and must be pruned out.



Growing Brambleberries

- Same growing requirements as raspberries, but more tolerant of heavy soils that don't drain so well, and diseases associated with these soils.
- Tolerant of **partial shade**.
- Prefer morning and midday sun, protect from hot afternoon west sun.
- Do not sucker like raspberries, stay in a clump, but canes will root if they touch the ground!



Pruning Brambleberries

- New **primocanes** grow for a year, then turn into **floricanes** that flower and fruit in the second year.
- After fruiting (in summer, Dec-Jan) cut canes to ground in autumn.
- In early spring weave fruiting canes around trellis wire.
- Shorten laterals to about 45cm (18").
- Maintain 6 to 8 canes per clump.



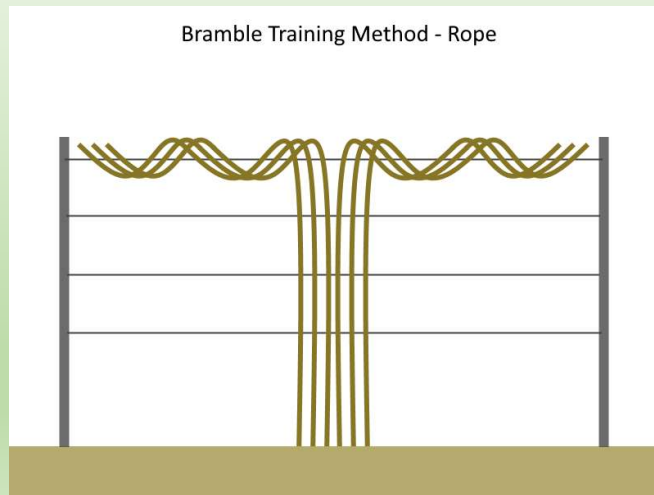
Training Brambleberries

- Blackberries and their hybrids have long trailing **horizontal** canes.
- Canes supported on trellis, wire mesh on fence, etc.
- Traditional training methods – **Rope, Fan, Weave**



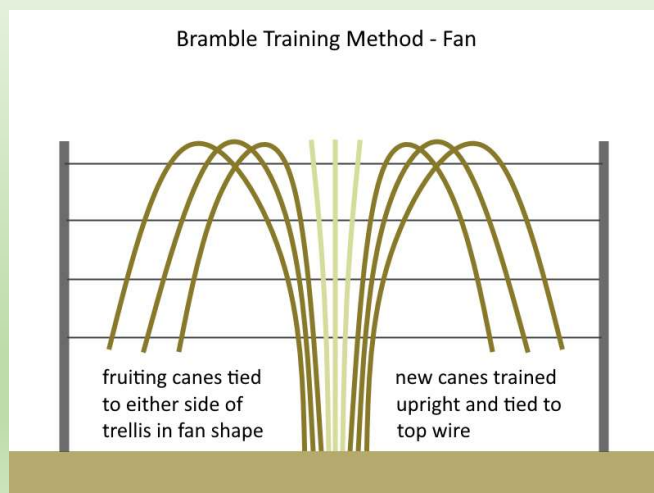
Traditional Bramble Training Method - Rope

- Simplest training method.
- Not the most productive, as canes are bunched very close together.
- New canes tied vertically or wrapped on lower wire.
- Gloves required to avoid the thorns!



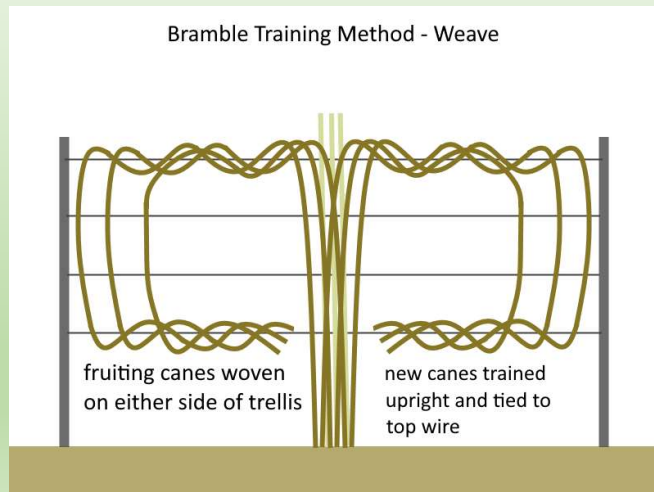
Bramble Training Method - Fan

- Provides high yields.
- Labour intensive.
- Recommended for less vigorous varieties.
- Fruiting canes tied to both sides, new canes trained vertically, then tied to top wire.
- After fruiting, old canes cut to ground, new canes spread to each side.



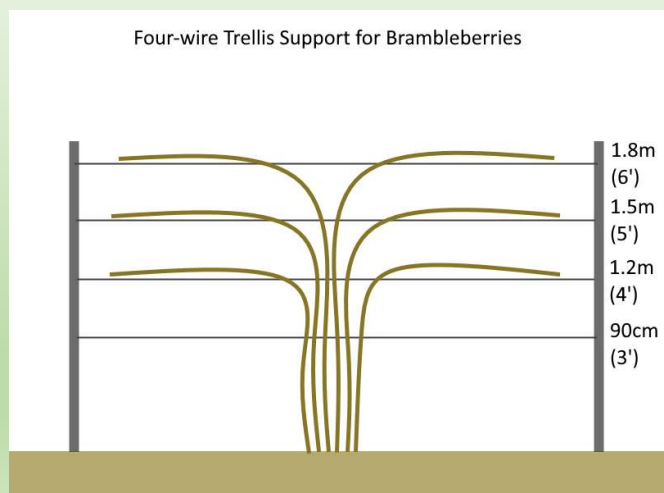
Bramble Training Method - Weave

- Gives highest yields.
- Most labour intensive!
- Fruiting canes woven on both sides, new canes trained vertically, then tied to top wire.
- After fruiting, old canes cut to ground, new canes woven to each side.



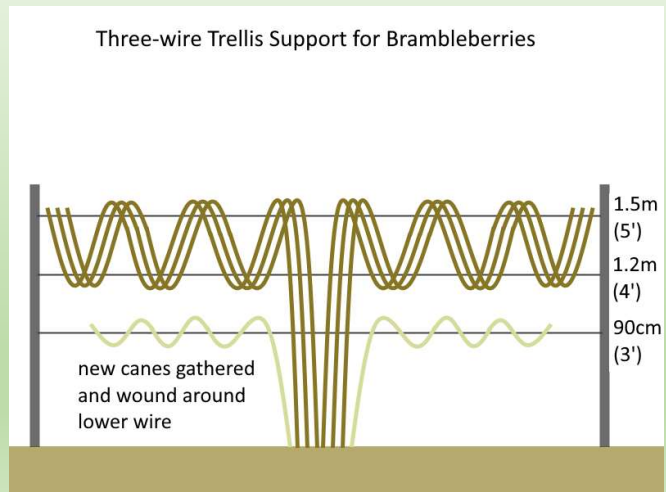
Training Brambleberries – Trellis Wire Spacing

- Use posts 2.4m (8') long, driven 60cm (2') deep in the ground, leaving post 1.8m (6') above ground.
- Four wires positioned at heights of 90, 120, 150 and 180cm (3, 4, 5 and 6').



Training Brambleberries – Three-Wire Trellis

- Easy three-wire method.
- Three canes bunched together and loosely woven around two top wires.
- New canes woven around lower wire.
- **Tip:** *loosely tie old canes together, then cut whole tied bunch after fruiting.*



Brambleberry Support – Mesh on Fence



Tayberry on mesh suspended from fence railings

Brambleberry Support - Arch



Loganberry grown over arch

Brambleberry Support – Post & Wire

- Star picket end posts.
- Cap the ends of star pickets for safety.
- Galvanised 2mm wire, use turnbuckles to tension wire for long runs.



Youngberry on three-wire trellis

Brambleberry Support – Mesh Panel

- Mesh panel hung on wall or fence
- Use hanging basket hooks
- Space mesh from wall with block of wood



Thornless youngberry mesh panel

Brambleberry Support – Single Wire



Silvanberry on single wire growing along steel fence

a1 admin, 4/06/2021

Brambleberry Diseases

- Blackberry Rust
- Treat with copper fungicide



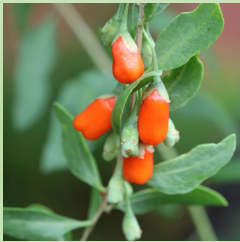
Raspberries and Brambleberries - Difference

- Raspberries leave a plug, blackberries and their hybrids don't.



Shrub Berries

- Blueberries & Cranberries
- Currants & Gooseberries
- Strawberries
- Goji berries



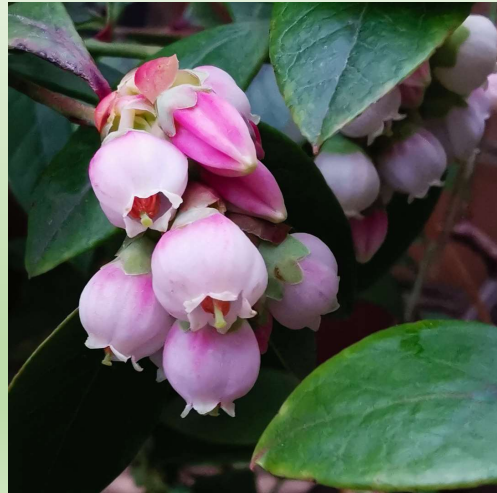
Blueberries

- Blueberries require well-drained, acidic soil high in organic matter.
- Optimum pH 4.8 - 5.5 (acidic).
- **Need full sun**, but protect from extreme sun and hot winds.
- Plant 1m apart.
- Need plenty of water to grow well!
- *Vaccinium* genus, like cranberry.



Growing Tips - Blueberries

- To acidify soil, mulch well with **pine needles**, dig **compost** into soil.
- Minimal pruning only, prune out old, weak and dead wood in winter .
- Slow to grow, won't produce much fruit in first 2 to 3 years.
- Can grow in 30-40cm pots.
- Use Azalea-Camellia fertilizer to acidify potting mix.
- **Plant two or more varieties** for better pollination and increased production.



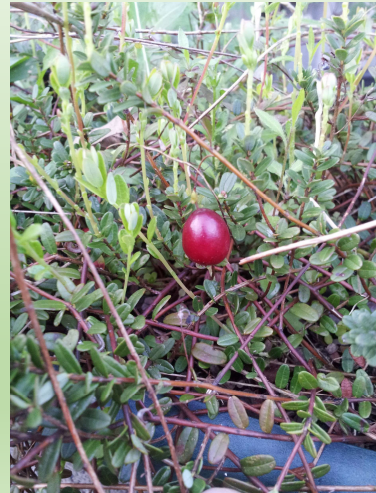
Cranberries

- Cranberries require well-drained, acidic soil high in organic matter.
- Can grow well in different soils, but don't like to have 'wet feet' (waterlogged roots).
- Low-growing, woody, trailing, perennial groundcover.



Cranberries

- Grow in soil with pH 4.0 - 5.2
- Optimum pH 4.5 (very acidic).
- Need full sun.
- Be patient, plants take 2 years to fruit.
- ***Vaccinium*** genus, like blueberry.



Growing Tips - Cranberries

- Grow well in self watering pot, elevate pot, allow branches to hang.
- Feed with Azalea-Camellia fertiliser to acidify potting mix.
- Can be propagated by layering.



Currants & Gooseberries

- Prefer a well-drained soil, rich in organic matter.
- Ideal soil pH 6.0 - 6.5 (slightly acidic).
- Will grow in full sun to partial shade, more productive in full sun.
- Not heat tolerant, protect from hot afternoon sun and summer wind.

Currants & Gooseberries

- Space plants at least 1m (3') apart.
- Will usually fruit 1 to 3 years after planting.
- Prune each year to remove weak or dead canes and open up canopy.
- From the ***Ribes*** genus, as are jostaberries.

Shrub Berries - Gooseberries

- Can grow in most soil types.
- Plant in part-shade to full sun, protect from extreme sun and hot winds.
- High chill hours to fruit, **1000 to 1200 hours** between 1.7 and 7.2°C to break dormancy.
- Varieties can be light green, pink, or red when ripe.
- Have **thorns** at each leaf node!

Shrub Berries - Currants

- Black Currants
- White Currants
- Red Currants
- Jostaberries



Red Currants

Taste Comparison- Currants

- **Black currants** have a strong and unusual flavour, are astringent, grown for their high vitamin C content, used for cooking and in juices.
- **Red currants** are sweeter than black currants, can be eaten fresh.
- **Red, pink and white currants** are all the same species.
- **Pink and white currants** have a milder, less acidic taste than red currants and are preferable for fresh eating.
- **Jostaberries** are a cross between blackcurrants and gooseberries, but are sweeter than gooseberries, and are also thornless.

Required Chill Hours - Currants

- Currants require high chill hours to fruit, **800 to 1500 hours** between 1.7 and 7.2°C to break dormancy.
- From personal observation, lowest to highest chill hour requirements:
 - Red Currants (probably around 800)
 - White Currants
 - Black Currants (probably 1200 or more)
 - Jostaberries

Pruning Currants & Gooseberries - Planting

- After planting, prune canes back to **4-6 buds** to encourage development of vigorous new canes.
- Pruning improves sun penetration into the plant, improves air circulation to minimize disease.
- To encourage plant vigour and fruit production, prune established currant and gooseberry shrubs each year, **in late winter**, before new growth appears.

Pruning Currants & Gooseberries – Years 1-4

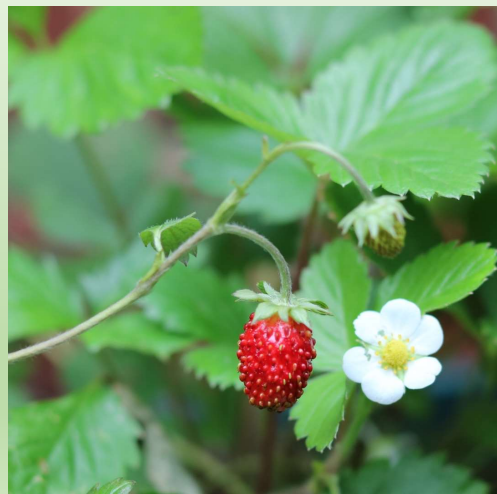
- During the **first 3 years**, allow 4-5 new canes to develop every year. Remove only weak or damaged wood.
- Beginning in the **4th year**, prune out the oldest wood every year. Remove any weak new growth.
- Mature shrubs should have **9 - 12 canes** after pruning is completed.
- Fruit is produced on **one, two and three year-old wood**, so aim to keep three to four canes of each age on the plant.

Pruning Tips - Currants & Gooseberries

- Always prune unwanted canes as close to the ground as possible.
- Prune gooseberry canes hanging down to the ground, as the canes can root from the tips touching the ground.

Strawberries

- Strawberries need full sun fruit, ideally **10 or more hours of sunlight** each day, **minimum of six hours** of direct sunlight each day.
- Like all berries, they prefer full morning and midday sun, afternoon part-sun or shade, protect from hot afternoon sun.
- Prefer light, well-drained, slightly acidic soil rich in organic matter.



Strawberries

- Are self-fertile, so a single plant will bear fruit, but need bees for pollination.
- Space plants 30-45cm (12 to 18") apart, can also be grown as a ground cover.
- Mulch well with straw or woodchips.
- Grow well in raised beds.
- Plant Alpine strawberries (wild strawberry) as they are more hardy, but fruit is small.
- From the *Fragaria* genus.

Strawberries – Locations to Avoid

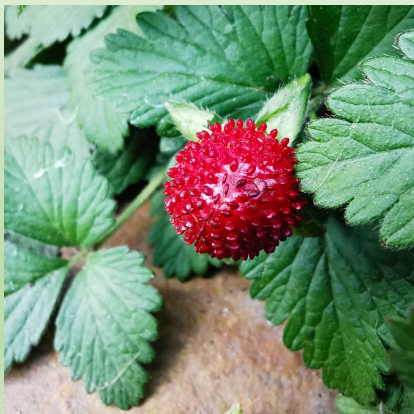
- Do not plant strawberries where *Solanaceae* family plants such as chillies, tomatoes, eggplant, potatoes, etc have been grown, as these plants could harbour *Verticillium wilt*, a serious strawberry disease.
- Garden beds planted with strawberries for 4 years or more can build up root diseases, preferable to **move strawberry plants to different areas of garden every 3-4 years.**
- Plant **away from tree roots** which will outcompete strawberries for water and nutrients, and cast shade.
- Avoid planting in **frost pockets**, as strawberry plants are frost-sensitive.

Strawberry Patch Renovation

- A strawberry patch will continue to be productive for **3-4 years** as long as the planting is maintained.
- Plants are attacked by aphids which spread viral diseases that cause plants to lose vigour and reduce fruiting, so they're usually **replaced every third year** with virus free plants.
- To renovate, remove weeds, **narrow rows to 15-30cm (6-12")**, **thin plants to 7-10cm (3-4") apart**, leaving younger daughter plants growing from runners, removing 3-4 year old plants.

Not a Real Strawberry!

- Mock strawberry has no taste at all, but same nutritional value.



Goji Berries

- Deciduous woody spreading shrub with long vining branches, small thorns.
- Adaptable to most climates.
- Prefer fertile sandy and loam soil with pH 6.8 - 8.1.
- Full sun, tolerate part shade.
- Need watering for first year. After that deep roots grow, plant becomes very drought tolerant.



Goji Berries

- Don't grow well in acidic soils or heavy, waterlogged soils, though will tolerate clay soils.
- Self-fertile.
- Space **1.0m-1.5m** (3-5') **apart**.
- Fruit quality **best during hot, dry conditions**, diminishes with cool, humid weather.
- From the ***Solanaceae*** (tomato) family.

Pruning Goji Berries

- Goji berries fruits on **current year's wood**.
- **No pruning required in the first year**, but pruning required in subsequent years to maintain vigorous new growth.
- **Prune in dormant season** (winter), remove weak, damaged, crossing branches, then **shorten lateral (side) branches by removing 15-45cm (6-18") from the tip**.

Pruning Goji Berries

- During early summer, **pinch off top 5-7cm (2-3")** of terminal growth (tipping) to encourages more lateral (side) branches, as they produce more fruit than branches growing straight up.
- After around 3 years, **plants may sucker**, sending up new shoots from the root system. **Prune off suckers**, or **dig them up** and transplant them.

Kiwifruit

- Kiwifruit are fast-growing, vigorous perennial, deciduous, woody vines.
- Are **dioecious**, with separate male and female plants.
- Only **female plants produce fruit**.
- For pollination to occur and fruit to develop, a **male plants is required**.
- One male planted for **every 5-7 females**.

Growing Kiwifruit

- Prefer **slightly acidic** soil with **pH 5-7**.
- Plant in a **sunny, protected area** of the garden.
- Grow in a range of soil types, do best in a loamy soil.
- Dig **compost** into soil before planting in clay or sandy soils.
- **Sensitive to waterlogging**, root damage occurs if soils are too wet.

Growing Kiwifruit

- Plant kiwifruit **3-5m (10-15')** apart.
- Grow over a very sturdy support system.
- Mulch to retain moisture, regulate soil temperatures, control weeds and encourage healthy root growth.
- Usually begin fruiting by **4th** or **5th** year.
- Reach peak production after **8th** year.
- Can live for more than 50 years.
- Main commercial variety is **Hayward** – approx. 90-95% of global kiwifruit trade.

Three Main Commercial Types of Kiwifruit

- 1. *Actinidia deliciosa*** (green kiwi) - common fuzzy kiwifruit with brownish skin, flesh inside is bright green, taste is tangy-sweet with a flavour like strawberry and watermelon. Tolerates -12 °C dormant.
- 2. *Actinidia chinensis*** (yellow kiwi) - fuzzy kiwifruit variety, fruit becomes almost hairless when ripe, flesh is yellow (but can be bright green, lime green, intense yellow, bright red), sweeter and more aromatic than green kiwi, flavour like some subtropical fruit.
- 3. *Actinidia arguta*** (hardy kiwi or kiwiberry) – small kiwifruit size of large table grape, smooth edible skin, sweet flesh with unique, "sophisticated" flavour. More cold hardy, tolerates -32 °C dormant.

Growing Gold Kiwifruit

- A popular cultivar of *A. chinensis* is 'Hort16A' .
- Sold under the name **Zespri Kiwi Gold** (Zespri™ SunGold™ kiwifruit).
- Has a lighter golden-brown skin, vibrant yellow flesh with smaller core and fewer seeds, flavour like a cross between strawberry and mango.
- **Not available to public.**
- Kiwifruit **don't grow true to seed.**
- Can't tell if seedlings **male or female** till they flower (~3 years)!

Kiwifruit Pollination

- Male plant should not be more than **12m (40')** away from females.
- Female hardy kiwifruit can be pollinated by male **hardy** and **regular** kiwifruit.
- Hardy kiwifruit '**Issai**' is the only self-fertile cultivar sold, but will **not** pollinate other hardy kiwifruit species.

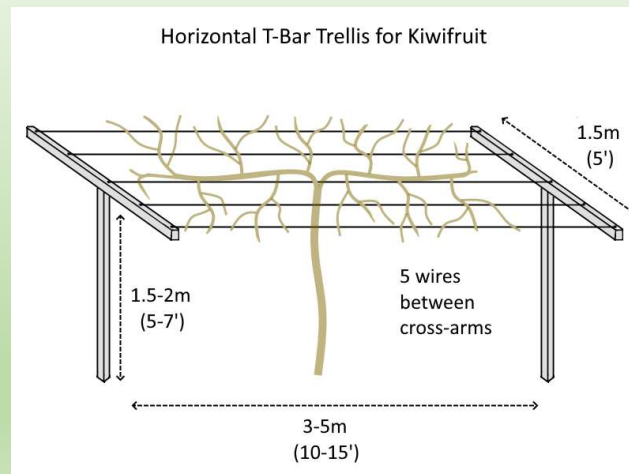
Kiwifruit Pollination

- Kiwifruit **difficult to pollinate** as they're not attractive to bees, and pollen has to contact female stigma within 3 days of female flower being fully open.
- Pollination accomplished **mainly by wind** and some pollinating insects, so **locate female vines downwind** from male vines.
- Match female kiwifruit varieties to an appropriate male pollinator with a **corresponding flowering time** when buying plants.

Kiwi fruit – Training & Pruning

- Kiwi fruit are usually pruned in **winter** when they are dormant, but also require pruning several times during summer after flowering.
- These vines are trained in a **T-shape** with a trunk and two side branches (also called laterals or cordons).
- May be grown on an **overhead arbour** (pergola) or on a **T-bar trellis**.

Kiwi fruit – Trellising



Steps in Training a Kiwifruit Vine

- **First Season** – develop a straight trunk that reaches the top of the support.
- **Second Season** – establish main permanent side branches (cordons) and tie down to support structure.
- **Third Season** – prune to create a framework with fruiting canes growing every 20-30cm from the main permanent side branches (cordons).
- **Fourth Season** – the framework of fruiting canes is now established. These fruiting canes may be renewed each year, or pruned so they are retained for 2-3 years and then renewed.

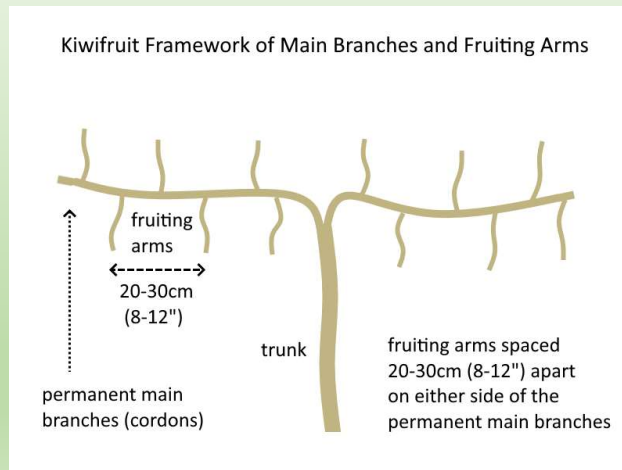
Pruning an Established Kiwifruit Vine

- Kiwifruit produce fruit on current season's growth growing from buds on one year old wood. Shoots from older wood rarely productive.
- These vigorous vines are pruned heavily like grape vines. Up to 70% of the previous season's growth is removed to renew the fruiting wood.
- Kiwi fruit pruned both in **winter** and **summer** to manage their growth.
- After fruit set, pruning is carried out to **decrease vigorous vegetative growth** and **open the canopy to the sun**.

Winter Pruning - Female Kiwifruit

- Female plants produce **fruit** but male plants only produce **flowers** for pollination, so each is **pruned differently**.
- Best time to winter prune kiwifruit vine is **early to mid winter**, as later pruning may cause excessive sap flow (**bleeding**) from pruning cuts, which can weaken the vine.
- A female kiwifruit vine is pruned to create a framework which has fruiting cane growing **every 20-30cm on either side** of the permanent side branches (laterals or cordons).
- New fruiting canes usually grow from the **base of last year's canes**.

Kiwifruit – Training & Pruning



Winter Pruning Procedure - Female Kiwifruit

1. Remove **older canes that have fruited**, leaving new fruiting canes growing from the base of last year's canes, **spaced every 20-30cm** along the permanent main branch.
2. **Shorten new replacement fruiting canes** to manageable length to force growth of fruiting side branches next season, and tie them to the support wires.

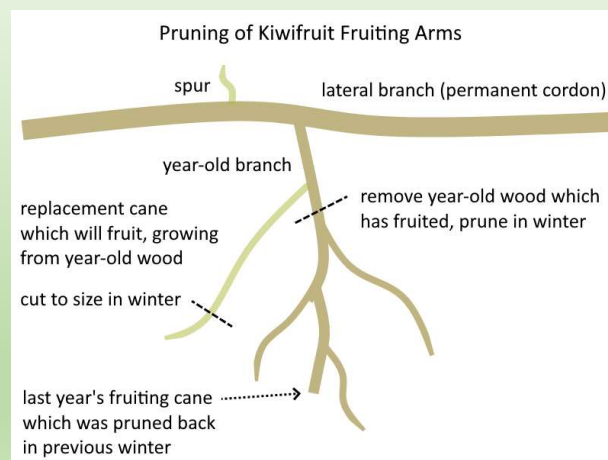
Don't twist canes around support wires, as this restricts sap flow and canes may strangle themselves.

Winter Pruning Procedure - Female Kiwifruit

3. Remove any canes that are dead, diseased, broken, tangled, crossing or rubbing on other canes.
4. New fruiting canes growing directly from the cordon may be left to replace older wood in the future.

Any spurs (short fruiting branches with buds close together) which usually grow from the older wood, such as the main cordon itself, should be left as they are very productive.

Pruning - Female Kiwifruit



Winter Pruning - Male Kiwifruit

- Male kiwifruit vines only **produce flowers for pollination**, and **grow more vigorously** than the females, so they are pruned differently.
- Only **prune lightly during the dormant season** (winter), just remove damaged and tangled shoots.
- In **spring**, straight after flowering, prune back the canes to **15-30cm** long. New growth produced in summer will flower in following year.

Summer Pruning – Female & Male Kiwifruit

- Kiwifruit grow very vigorously in summer, and most of this new growth should be removed.
- If female kiwifruit vine has fruited, cut back canes to **3-4 buds (leaves) after the fruit**, so the vine puts energy into developing the fruit rather than more green growth.
- Select **shoots growing from the base of the fruiting cane**, and shorten these to 2-3 buds to provide next year's fruiting wood. Remove all other leafy growth throughout summer as it arises to prevent shading of fruit which hinders ripening .
- Prune back all vigorous upright growth (**water shoots**) back to **two buds**.
- **Note: Horizontal** shoots with lots of **buds close together** are the most productive.

Grapes

- Grapes are woody perennial vines.
- **Require full sun** to provide the heat needed to ripen fruit.
- Each vine needs about **2m (6')** of space.
- Prefer **deep, well-drained soils, pH 6.5**, depth needed as most root systems are at least 90cm (36") deep.
- Fruit develop on **new shoots** (canes).

Grapes

- Can fruit in one year after planting.
- Flowers are pollinated by wind and insects.
- Yearly pruning necessary.
- From *Vitis* genus, common grape vine is *Vitis vinifera*.

Grape Vine Supports

- Require some type of support or they will trail along the ground.
- Can be grown over arbours, trellises, fences.
- Support can be complex as an arbour covering a patio for shade, or as simple as a post in the ground to support the trunk of the vine.
- Almost any support structure can be used, as long as it's sturdy - grape vines grow quickly and get quite heavy.
- Grapevines can be trained and pruned to many forms and shapes.

Grape Vine Supports



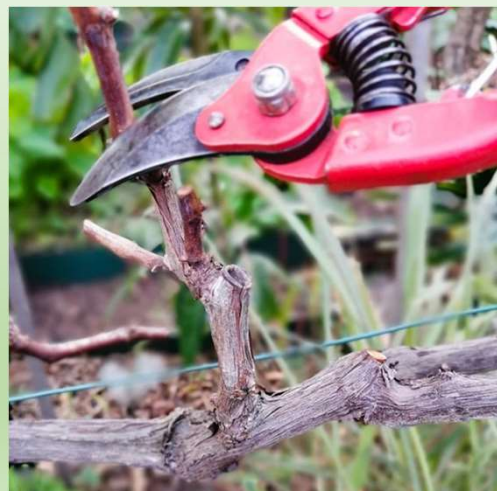
Sultana grape vine growing under eaves on west facing wall

Grapes – Care & Maintenance

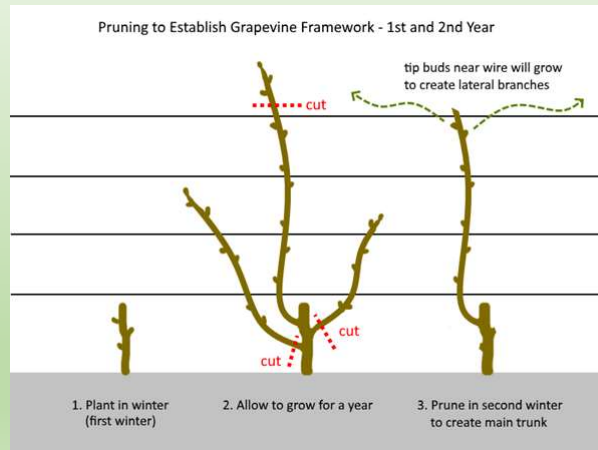
- Grapes are susceptible to fungal diseases, need spraying with fungicides.
- Spray with copper based fungicide or lime sulphur during dormant season in winter.
- Control grape leaf blister mite with wettable sulphur.
- Water the root zone only, avoid getting foliage wet as this can encourage many grape diseases.
- Prune grapes in winter during June-July.

Pruning Grapes

- Grapes fruit on **new season's shoots** which arise from **one-year-old canes**.
- Once these canes have produced their fruit for the season, they will **not produce again**.
- To keep grapes productive, they need to be pruned to renew the young canes which will produce in the following year.

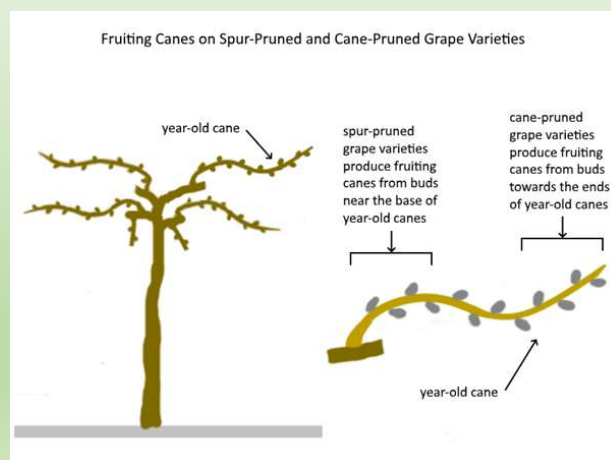


Planting Grape Vines, Creating the Framework



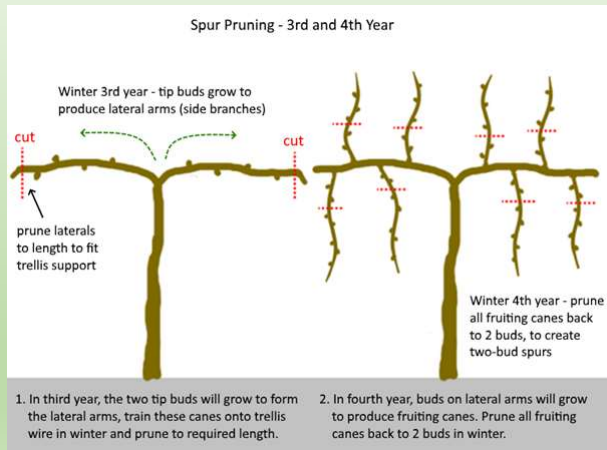
Spur vs Cane Pruned Grape Varieties

- **Spur-pruned grape varieties** are more vigorous growers, produce fruit on new growth from buds **close to the base** of one-year canes, near the main stem.
- **Cane-pruned grape varieties** are less vigorous, produce fruit on new growth from buds **towards the end** of one-year canes.



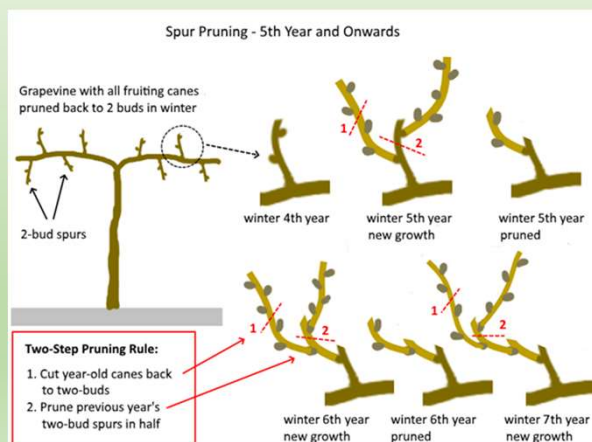
Spur Pruning Grapes – First to Fourth Year

- Prune first fruiting canes to create evenly spaced two-bud spurs.
- Select healthy canes, evenly spaced at ~15-20cm apart to form the new spurs, and prune back to two buds from the base (*not including the bud at base*). Preferably, select upward facing buds. Cut 1-2cm above bud to prevent buds drying out.
- Prune off all other growth from the main laterals.

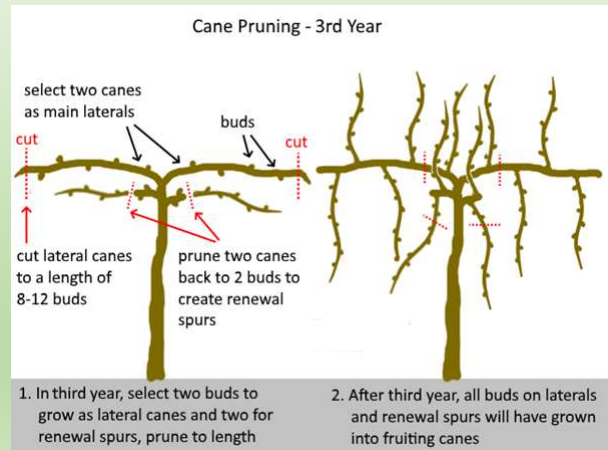
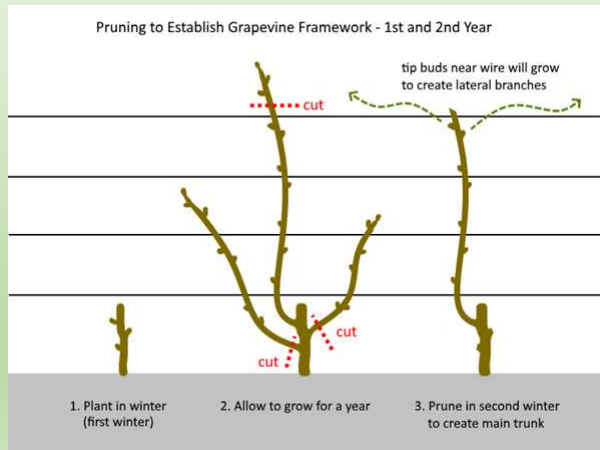


Spur Pruning - Fifth Year and Onwards

- On **5th year** onwards, spur pruning is carried out following this **two-step rule**:
1. Prune previous year's two-bud spurs in half, removing top half of spur with new growth coming from it.
 2. Prune new growth coming from spur's remaining lower shoot down to two buds, creating new two-bud spur which will produce new fruiting canes following year.



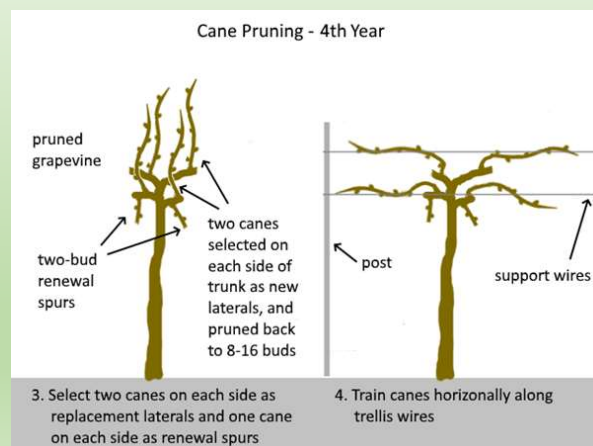
Cane Pruning Grapes – First to Third Year



Cane Pruning Grapes – Fourth Year

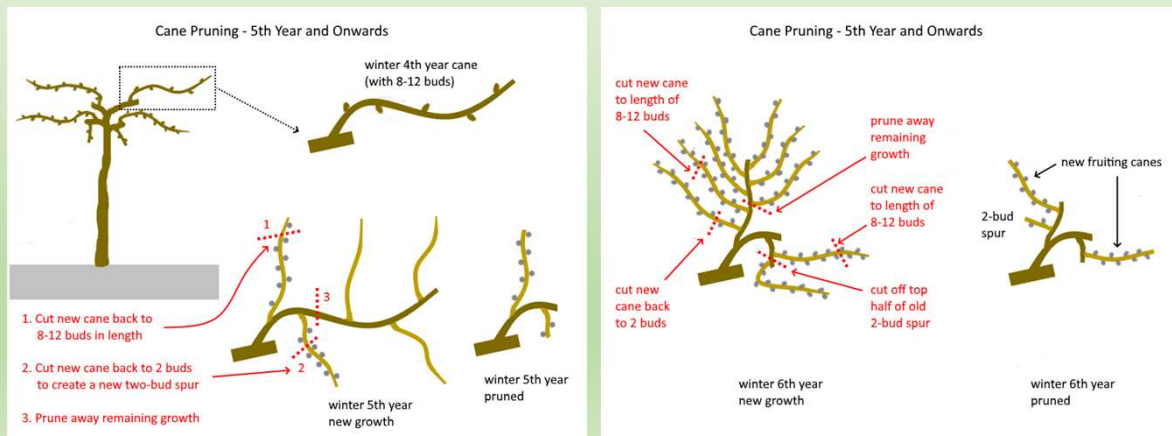
- After **3rd year**, cane pruning is carried out following this **three-step rule**:

1. Prune previous year's two-bud spurs in half, remove top of spur and new growth coming from it, leaving a single long fruiting cane growing from each spur.
2. Prune new growth coming from the spur's remaining lower bud to either **8-12 buds** to create a fruiting cane, or to 2 buds to create new two-bud spur which will produce new fruiting canes in following year.
3. Prune two previous year's long fruiting canes into short two-bud spurs, one on each side of trunk.



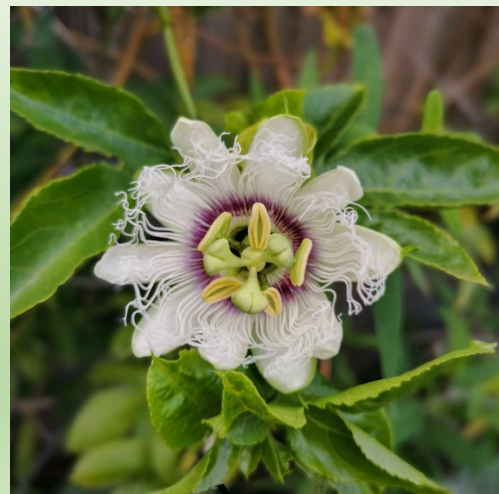
Cane Pruning – Fifth Year and Onwards

- Three-step pruning process is repeated each and every year.



Passionfruit

- Passionfruit is a shallow-rooted, woody, perennial, evergreen subtropical vine that climbs using tendrils.
- Short-lived, 5-7 years only.
- Grow best in **full sun**, where they can reach full sun after climbing.
- Vines that are in shade or partial shade typically drop their leaves.



Growing Passionfruit

- Prefer rich, **well-drained, slightly acidic** soils, high in organic matter, but will tolerate near-neutral to alkaline (pH 6–7.5) conditions.
- Can be grown in **mounded soil** for good drainage.
- Need **protection from the wind**.
- Space plants **3m (10') apart**.
- **Mulch** to suppress weeds and maintain soil moisture.
- **Heavy feeders**, feed at start of spring and autumn.

Passionfruit Varieties

- Black passionfruit – cold tolerant
- Banana passionfruit – very cold tolerant, very vigorous, considered weedy.
- Panama Red and Panama Gold are a vigorous hybrid passionfruit that are more tropical than the black.
- **Grafted passionfruit** are grafted onto blue passionfruit (*Passiflora caerulea*) rootstock, which are prone to suckering in coarse or sandy soils!

Passionfruit Support Structures

- A strong fence or trellis that can withstand high winds when covered with a vine may be used.
- Train vines in a manner that maximizes the canopy surface area.
- In a 'curtain' training system, main stem reaches top support wire, vines spread horizontally and then drooping down like a curtain to fill in the open space below.

Pruning Passionfruit

- Passionfruit flower and fruit on **new, current season's growth**.
- Can grow up to 10m (30') and is very fast-growing.
- The best time to prune is **early spring** after frosts have passed.
- Remove any dead, diseased or tangled vines.
- Remove **up to one-third** of previous year's growth to promote new growth and increased fruiting.

Native Australian Berries

- Tasmanian Mountain pepper, Midyim berry, Appleberry, Muntries, Native Raspberry, Ruby & Nodding Saltbush, Blue Flax Lily (*Dianella caerulea*) are a few...



Tasmanian Mountain Berry

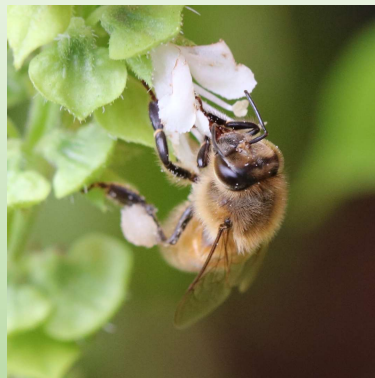


Midyim Berry



Native Appleberry

Questions and Answers



<http://deepgreenpermaculture.com>

© Deep Green Permaculture, 2021