

Telopea Mtn Permaculture & Nursery

*Permaculture designed
Biodynamically managed*



Co-Founders of the
Heritage Fruits Society ■

Our conditions

- 1200mm rainfall
- Min 0 C max 45 C
- Snow 1-4 times per year
- Dry summers evap exceeds rain 5 / 12 mths
- Cold wet winters
- But what do we actually grow

- 13 vars of avocado grown at Telopea Mtn
- 8 white sapote
- 7 bananas
- 8 macadamia
- 4 guavas, Babaco, Jaboticaba, Kie apple.
- Sugar cane, Arrowroot, Yacon, Tumeric, ginger, Cardoman,
- Trees in the new Glasshouse:
- Maringa, cinnamon, neem, golden fruit of the Andes,

Conditions in NSW- sub tropics

- Rainfall 1400mm
- Temp 1C to 37C
- Lower chill hours than Vic.
- Low rainfall June – Aug 45mm
- High rainfall Jan – Mar 140mm
- Result, fungal issues prevalent
- rest ave 90mm
- ? Apples In florida.

So could you still grow here

- Apples
- Nashi
- Plums
- Selected peach, nectarine, apricots
- Figs, persimmons, pomegranates, hazelnuts,
- Its now all about good orchard design and correct tree design.

So what's important to consider

- Good open airy layout
- Small dwarf trees or espaliers
- For QFF use exclusion nets, early vars

Issues

- Fungal control Nov- Jan –

Solutions

BD spray

- BD Tree paste
- Pruning in correct phases

Telopea Mtn has been selecting apple vars for NSW for 6 years

■ Apples that don't get scab or sooty mould

■ Discovery, Spartan canberra, Akane, Belle de boskoop, Blenheim orange, Fenoulit gris, Prima, Stewart's seedling, Bramley's seedling

Lower Affected vars

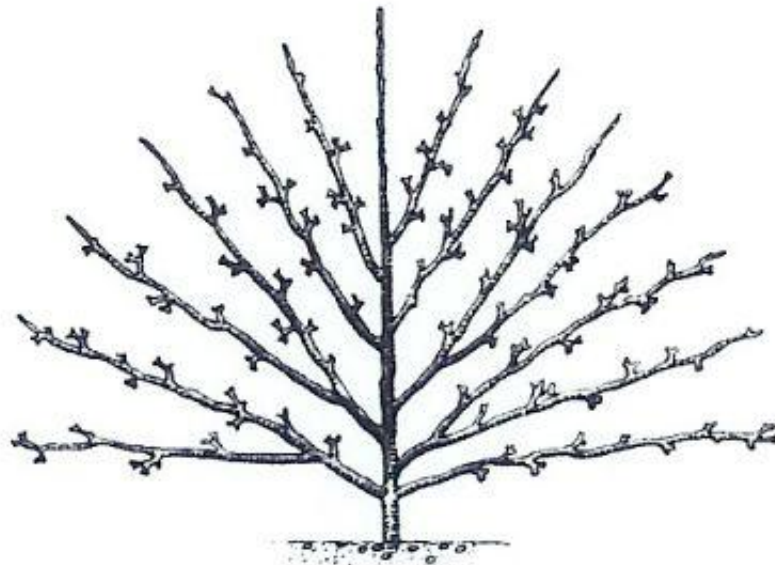
Granny smith, Jonathon, Fuji, Gravenstein, Opalescent, Cox's orange pippin RED, Snow.

We have had very high fungal years at Telopea since 2010 – 2015

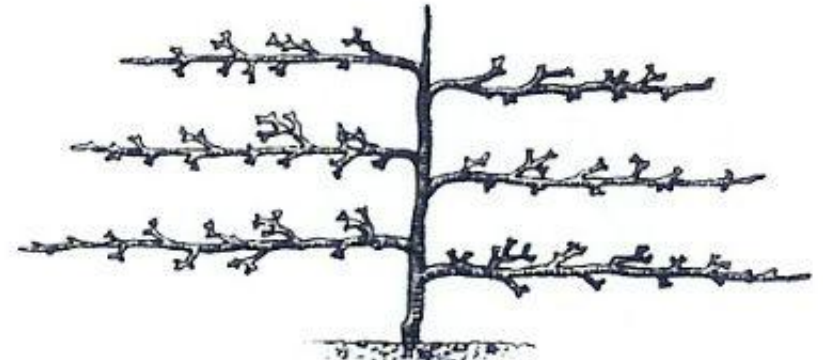
Autumn espalier



Shapes for espaliers



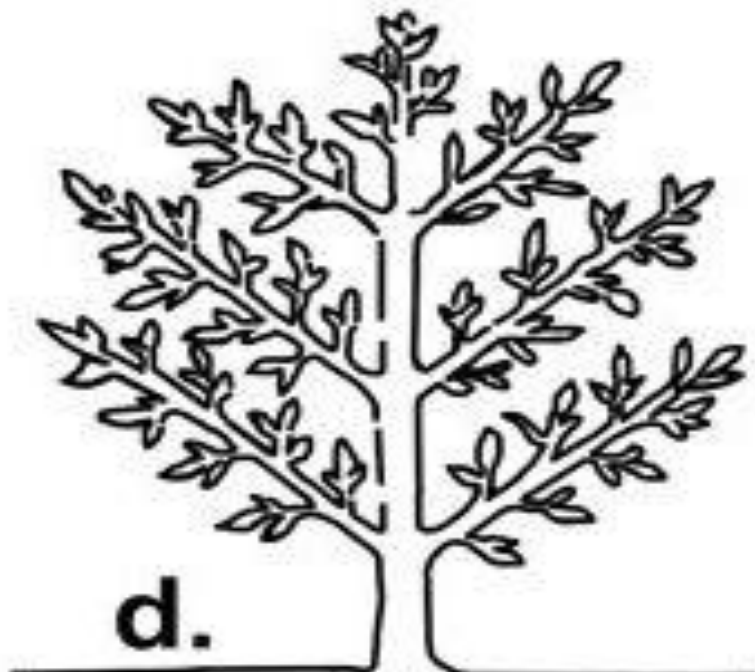
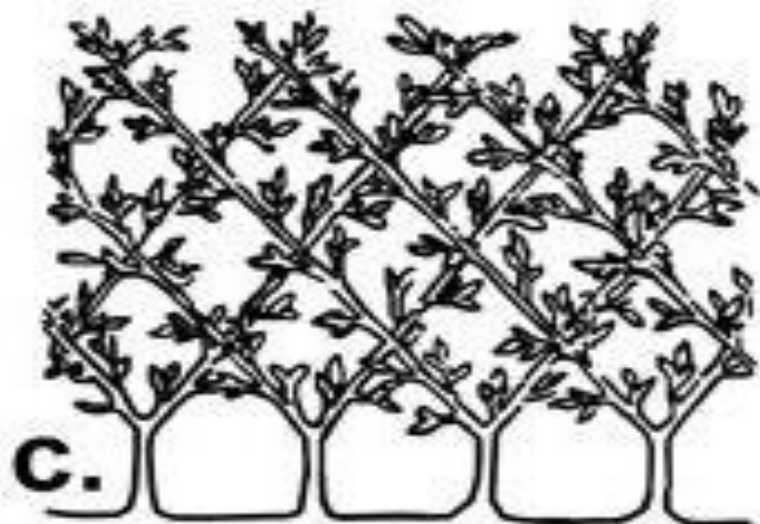
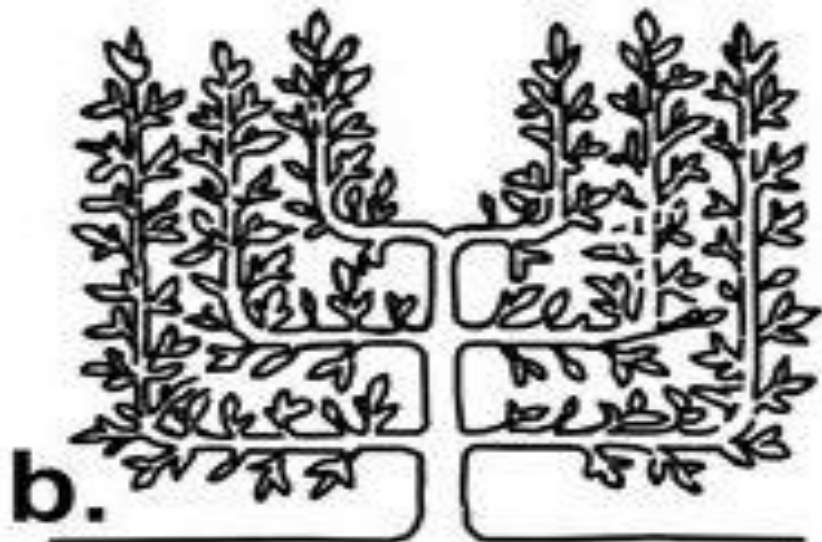
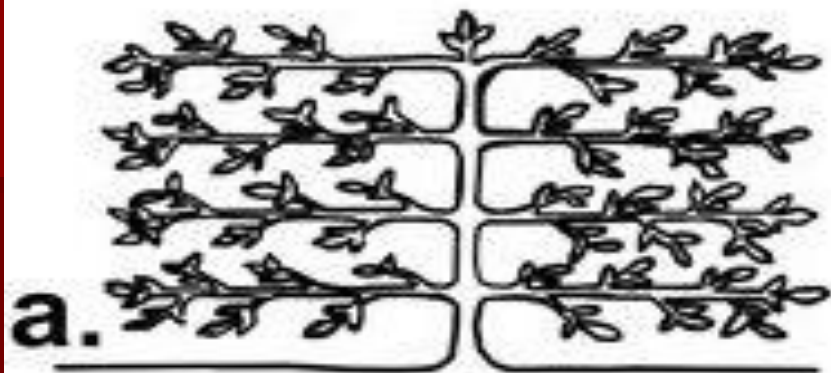
FAN



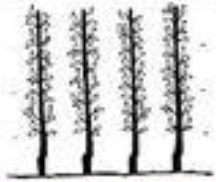
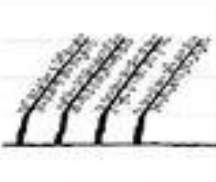

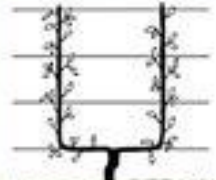
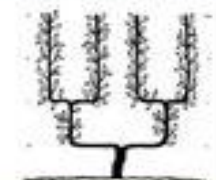
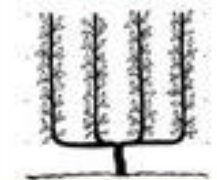
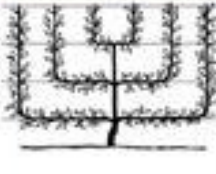
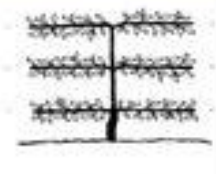
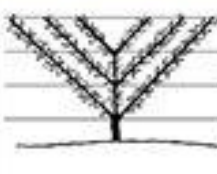


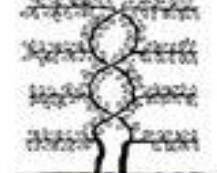


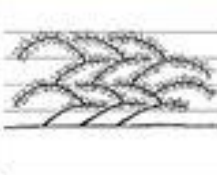



ESPALIER



STEPOVERS



Typical Espalier Patterns

Cordon Patterns			
	Vertical Cordon	Oblique Cordon	Racine
Multiple Cordon Patterns			
	U	Double U	Multiple Cordon
Tiered Patterns			
	Palmace, Vasche, Candelabra	'Smaller' / Horizontal T	Palmace, Oblique
Serpentine Patterns			
	Serpentine	Heart	Cross-over 'Topaller'
Fence			
	Belgian Fence	Orphee Handpick	Orphee
Fan Patterns			
	Fan	2 Scaffold Fan	Informal

Rootstocks and Scions

■ Rootstocks:

- reduce Vigour
- Can give Disease resistance
- Hardiness to soil conditions

■ Scions:

- Can also affect vigour T1- 3
- Can extend the fruiting season

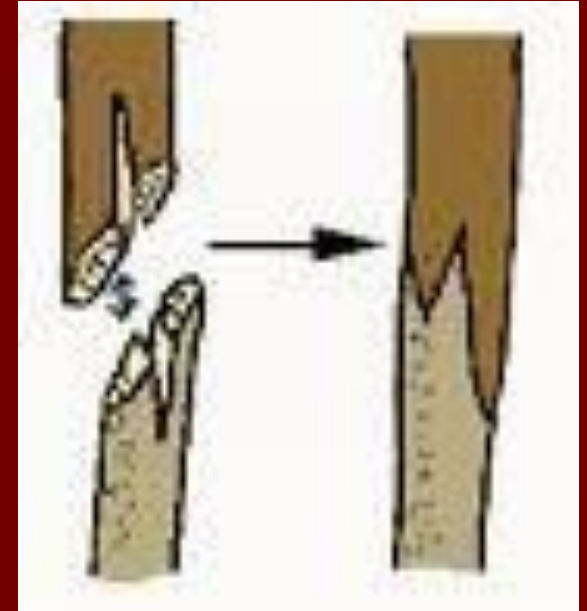
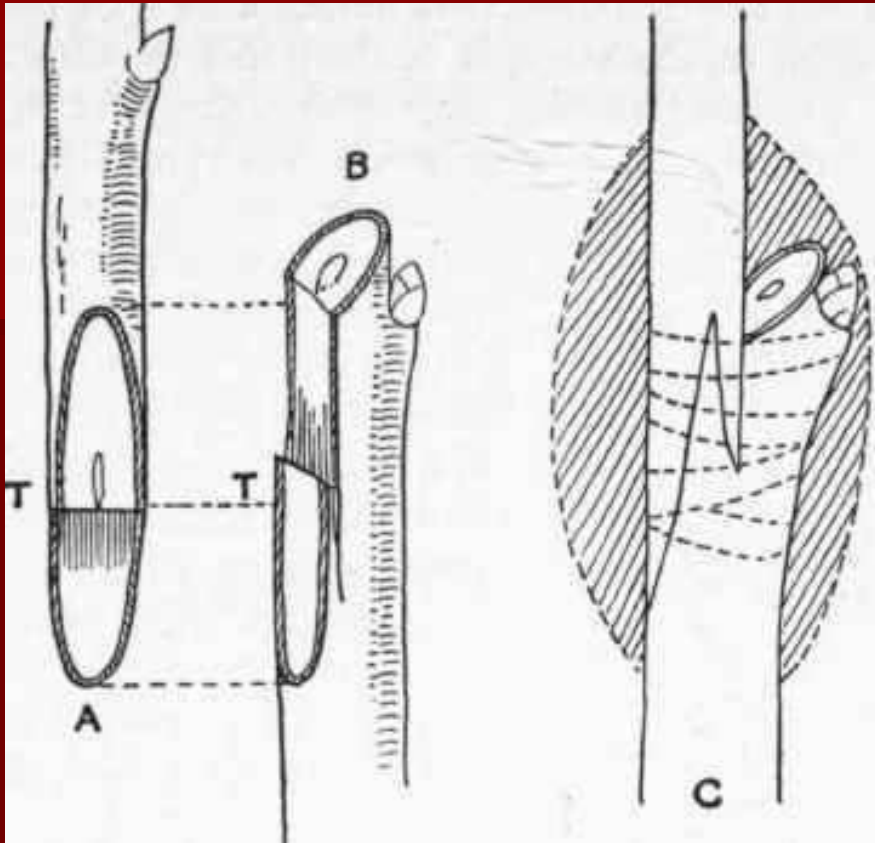
■ Compatibility

- Some need to be 'double worked' eg. pear on quince
- Mm106 or MM102 on top of M9

Rootstocks for apple & pears

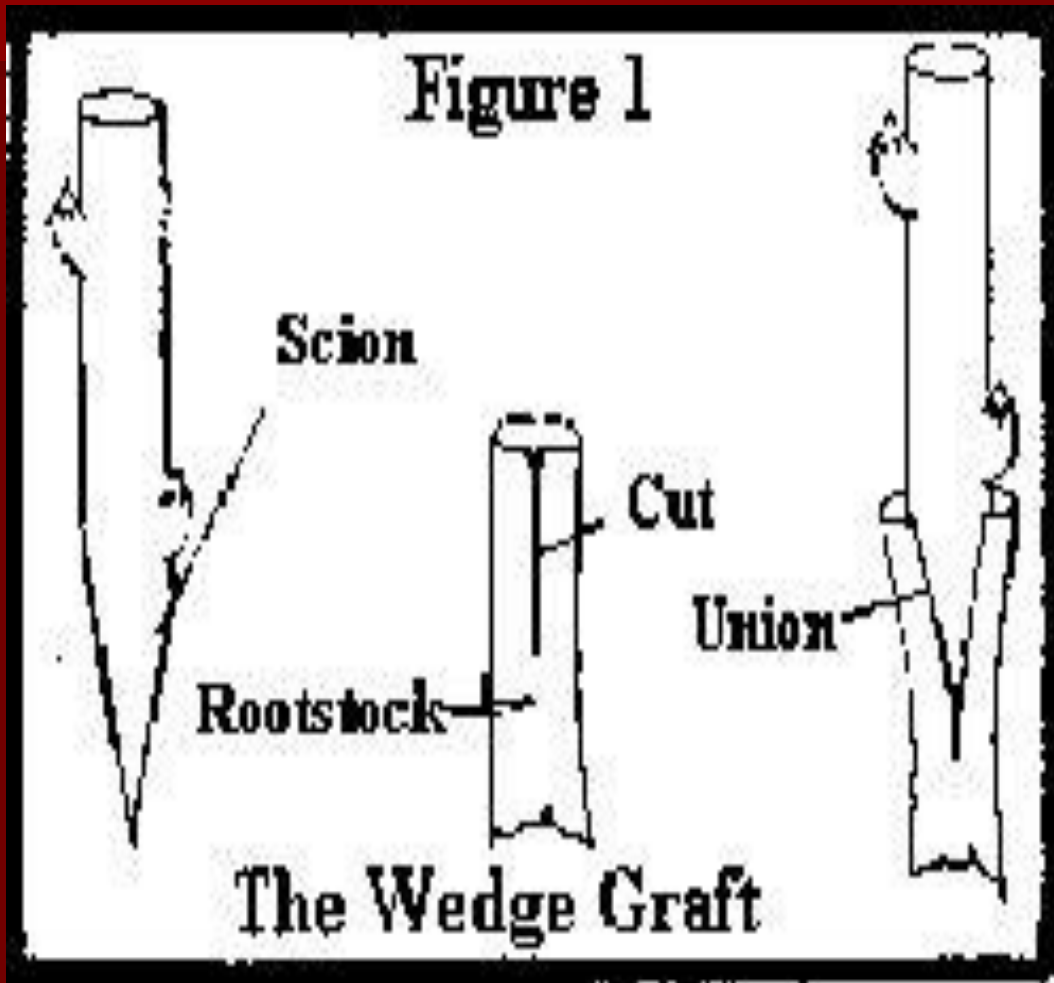
- M9 1.8mtr single trunk
- M26 2mtr High by 2mtr wide
- MM102 2.7-3.0mtr high wider spread faster filling the framework
- MM106 harsher conditions and faster growth
- MM111 real Gold country conditions
- Pear D6 Calleryana new, Quince A or C
- BM2000 & BM1 should be available soon

How to graft



- The whip & Tongue is one of the easiest grafting techniques, it is most suitable for material up to pencil thickness.

Wedge grafting



- This graft is suitable for material that is larger ie thicker than a finger.
- It is also used to rework trees.

Oblique cordon on M26



106 rootstock used here





Moving them around

- This is easy with a small hand trolley.
- One person can move these espaliers that are 1.8m wide.
- We move 21 in our horse float (heritage fruit tree float) to shows.

Corner espalier 2 tier.



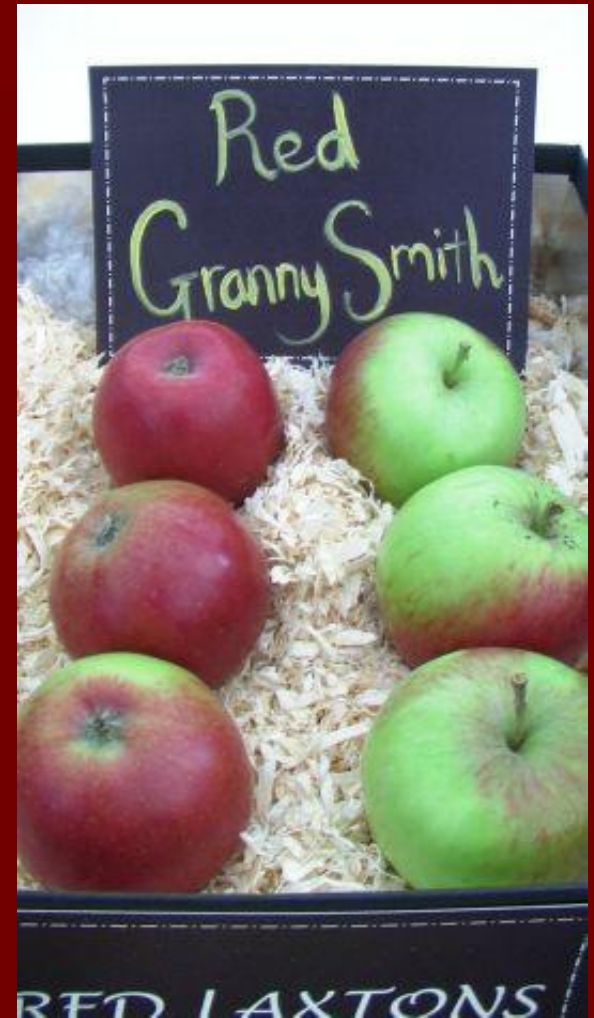
Training a tree as a “spindle”



Telopea Mtn Nursery

- Currently we have in personal collection:
- 450+ Apples, (53 real cider varieties)
- 130 of the 150 Plums in HFS collection
- Around 200 Pears
- 18 of the 24 Nashi's
- A few Cherries (19).
- 110 Figs, Berries, Quince
- Total varieties currently over 1000

Kidd's Orange Red, Petty's open day winner in 2009



Heritage Apples



Varieties for taste, certain preferred qualities or resistances.

“Prima” is a scab resistant Variety suitable for Organic growers.



Fantastic flavours and crunch

“Fuji” has a weeping habit.



Blue Pearmain.



Some of the Cider varieties.



Sweet Alford



Trembletts Bitter

These and other varieties supply the ingredients to make a good cider or scrumpy



Somerset Redstreak



■ Michelin

Some people would call this
"Utopia"







04/04/2014

Pest management warmer regions

- Here fruit fly and fungal issues dominate.
- Dwarf varieties to 2mtrs and exclusion seem the most organic methods.
- Pigs and/or chooks under trees will help.
- Traps **Cera Trap** and **Eco-Naturalure** are both organic fruit fly baits.
- pheromones or 'sex attractants' are used to attract the male fly.

Fruit Saver and Veggie Saver Net



PE181 Vege Net(6x20) \$149.95



Naturalure™ Fruit Fly Bait



■ This is a protein and sugar based bait containing the active ingredient spinosad. The mixture is highly attractive to fruit flies, including Queensland and Mediterranean fruit flies. Female fruit flies can detect the bait from several metres away. Naturalure™ Fruit Fly Bait Concentrate is included by the Biological Farmers of Australia (BFA) on the list of registered allowed inputs suitable for use in Australian Certified Organic (ACO) farming systems. There is no withholding period required when used as directed.

Some Fruit Fly Resistant Fruit

- Avocado, avoid thin-skinned Fuerte and Rincon
- Bananas
- Blueberry, sometimes affected
- Citrus, avoid thin-skinned varieties such as Meyer lemon
- Custard Apple, winter ripening varieties are best
- Grapes, sometimes affected
- Grumichama
- Ice Cream Bean
- Jaboticaba
- Kiwifruit
- Longan and Lychee
- Macadamia
- Mulberry, sometimes affected
- Nashi Pears, sometimes affected
- Passionfruit
- Pawpaw
- Persimmon, early varieties like Fuyu are susceptible
- Pineapples
- Pomegranate
- Source: <http://www.greenharvest.com.au/PestControlOrganic/Information/FruitFlyControl.html>