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&
Trees for Bees Plant Nursery
Cheltenham



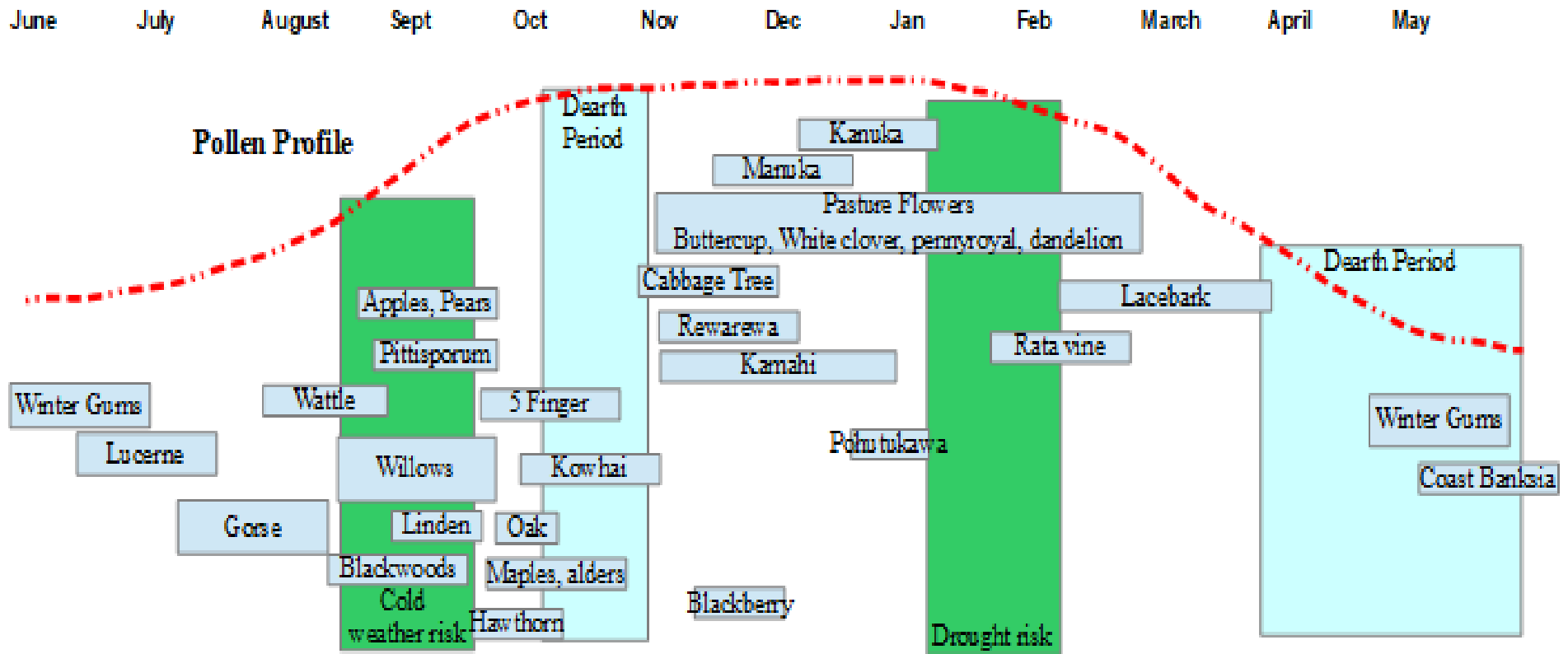
About us

- Operate 1600 Hives – mix of clover, bush & manuka sites
- Extraction business, 200-300 tonne per annum
- Trees for Bees Plant Nursery
- Consult on Trees for Bees projects
- Promote sustainable beekeeping and partnerships
- Opposite Hato Paora @
Cheltenham



Trees for Bees

Pollen Calender, the place to start



Trees for Bees/Birds

- Filling the calendar with high quality Pollen (eg Pine 6% protein no good)
- Strategic planting of nectar & pollen producing trees
- Fits with many other needs, eg timber production, riparian, land retirement, shade and shelter, Manuka Honey production
- Change the planting mix slightly or alot – better support pollinators and birds
 - Target trees that produce high protein pollen (>20%)
- Creates greater amenity value due to flowering and wildlife

Right Tree, Right Place

- First step is to do a farm plan
 - Any areas for timber, how good is the access, wind
 - Hedgerows for timber/firewood
 - Waste areas for retirement
 - Wet areas for riparian planting
 - Shade trees for paddocks/amenity
- Consider soils, how wet/dry and also wind & frost
- What sort of maintenance you are prepared to do
- What are the farm needs
 - Shelterbelts, firewood, timber, amenity & shade, food crops
 - Is there enough land to generate income from Timber or Manuka Honey, food crops, nut producing trees etc?

Typical Issues

- Poor establishment
 - Too much competition from weeds
 - Pests such as rabbits, hares and goats/feral deer
 - Plants too small, or planted too late
 - Holes in fencing
- Be aware of trees that create endless maintenance (wrong tree/wrong place)
 - Short electric fences,
 - Branch drop damages fences, litters paddocks
- Wrong tree for the conditions
 - Many natives are frost tender, need cover planting
 - Eucalyptus have varying susceptibility to wind, frost, salt and soil conditions
 - Research trees and talk to local growers

Always consider how invasive the species is

- Some Maples can be invasive, eg Sycamore
- Wattles eg brush wattle
- Phoenix palm
- Wild cherries
- Buckthorn
- False acacia (*Robinia pseudoacacia*)
- Chinese privet

Strategies to reduce issues

- Planning, fencing, ordering trees, farm map etc, 12month-2 year planning horizon
 - Stage things, dont try to do too much too fast
- Planting/establishment
 - Use stock to eat the area down
 - Use a weed eater and spray circles
 - Plant end of May to early June
 - Target trees that are 40cm+ (or use plant protectors)
 - Spray rabbit deterrent (egg + acrylic paint or Plantskydd)
 - Eradicate pests
 - Plant cover plants first and then overplant later
- Maintenance
 - Dont plant tall trees with large branches near boundary or any deer fences - plant instead a small branched hedging tree against the boundary
 - Be wary of species that tip over in high winds

Con't

- Shading
 - Tall evergreen trees planted on North or North East facing fencelines will shade paddocks, plant deciduous
- Wind
 - Tall trees planted on ridgetops will exacerbate wind roll
 - Consider planting trees that will break up wind rather than provide a solid buffer
 - More hedges are often better than larger ones
- Fence off areas to be planted,

Hedging

- Mixed Native hedges
 - Use pittisporums or akeake to provide wind break/substance
 - Mix in other natives for colour and variety eg Kowhai, 5 finger, Lacebark, Ramarama, Kanuka, wineberry etc.



Exotic Options

- Alders
- Alpine wattle (smaller version, very dense flowers)
- Photinia (will need trimming)
- Bottlebrush, honey myrtle
- Blackwoods
- Coast Banksia



Other Hedging

- Mixed Exotic, Native Hedges
 - Pittosporum, Cabbage tree, Tree Lucerne, Manuka, Lacebark, Bottlebrush, Camelia, Gordonia, etc
- Low height Hedge (<4m)
 - Flax, Koromiko, Corokia, other hebe, basket willows
 - Carob (fodder as well)



High Maintenance mistakes

Conifers planted too close to fencing

High risk of breakout if windfall branches collapse onto fence

Ongoing maintenance issue



Small branches key to protect fences

Mature Natives, no risk of fence damage from Trees, low maintenance



Firewood, Trees for Bees options

- Tasmanian Blackwood,
- Blue Gums, Manna Gums, Yellow or Apple Box Gum, Swamp gum
- Tree Lucerne



Options for Timber Plantations, Trees for Bees alternatives

- Radiata, Douglas Fir
- Tasmanian Blackwood
- Eucalyptus, number of species options, depends on frost levels, climate, distance from coast, durability
 - E. Nitens, E. Fastigata non durable, pulp
 - Durable options being trialed by NZDFI such as E.tricarpa, E. bosistoana, E. macrorhyncha all excellent for bees

Riparian plantings

- Problem with Natives is the flowering gap Feb – July
- Need to add more
 - Lacebarks, koromiko, Olearia, Coprosma grandifolia
- Better nectar producers
 - Rewarewa, kamahi, rata vines, native creepers
- Plenty of flax & cabbage tree
- Some non native options – fix the dearth problem
 - tree lucerne, maples, escallonia, winter gums, swamp gum

Amenity Plantings

- Shade and feature trees
 - Lindens, tulip trees, maples, ornamental malus and pear, tupelo for wet areas, Oaks
 - Large natives, Rata, red beech, Pohutukawa
 - Ornamental gums, silver \$, winter red gums, ficifolia, etc
- Corner of a paddock
- Laneways, yards
- Track stabilisation (deciduous)



Reducing Stress on a Deer Farm

- Deer are fringe dwellers, planting cover trees can reduce stress
 - Consider poplar poles, needs mesh tree guards
 - Cover trees can reduce tracking
- Visually blocking parts of the farm helps separate mating groups
- Plant trees around holding yards



Resources

- Trees on Farms Guide (WRC)
- Trees for Bees Riparian Guide
 - www.treesforbees.co.nz/resources
 - trees4beesnz@gmail.com