



SOUTHERN WOODS

PLANT NURSERY



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Info 26: THE WAY TO A BEE'S HEART IS THROUGH ITS' STOMACH

This is moment when real men learn to love flowers. Bees need flowers, lots of them. The nectar in the flowers contains sugars for energy, and the pollen provides protein, vitamins, fats, minerals and other goodies. The nectar and pollen combined provide the bee with virtually all of their nutritional needs.

This article will discuss ways to attract more bees into your environment by incorporating bee-friendly thinking into your property management and into all of your plantings be they for shelter or erosion control, environmental, or amenity reasons. It hasn't been written by an entomologist but by an ex-amateur beekeeper and Canterbury nurseryman. As you all know, that as a nurseryman I know every conceivable thing about every plant on every site. Yeah right. A number of key references have been used in its compilation. These are listed at the end of the article.

Native and exotic bees are the good guys. The long-term future for New Zealand's native plant communities, and our agricultural and horticultural production, are dependent on their presence for pollination. About \$3 billion of our GDP is directly attributable to bee pollination, while indirectly they provide far more value solely with the pollination of clover in our pastures and the subsequent nitrogen fixation.

Native and exotic bees are under threat from disease, environmental degradation with the corresponding loss of beneficial plants and plant diversity, and the unwise use of certain agricultural chemicals (e.g. Nicotinoids), and from other man-made pollutants.

There are 27 endemic (native) bee species that have an essential ecological role in the pollination of our native plants. Specific plants have evolved to be pollinated by small number of these species. If we lose the bees we can ultimately lose the plants. Planting native plants is essential for bee habitat, as is leaving some areas bare to provide habitat for the ground nesting species.

Native parasitic wasps also deserve a mention here too as they are in the same leaky boat as the native bees. They lay their eggs inside other insects such as aphids, thereby reducing the number of aphids. The more nectar bearing plants there are available, the longer the adult wasps live, and the more aphids bite the dust. Nature at your service!

Native and exotic tree and shrub flowers are a significant component of the bee's food source but equally important are the flowers of crop or pasture plants, and those of other herbs in non-production areas i.e. along fence lines and roadsides.

The landowners can use bee-friendly management practices like not spraying out, or only judiciously using herbicides, on fence lines, drains, field edges, roadsides and 'waste areas'.

Bees like warmth and shelter so create more sheltered areas with plantings of flowering plants. Best are planting sites that get plenty of sunlight, are warmed first thing in the morning, and are facing north.

Get away from monoculture and embrace biodiversity. Are you a rye grass and clover spray-everything else-out manager, or an environmental custodian?

The bee needs access to pollen and nectar sources all year but the critical time is from late autumn through to late spring when the hive is needing supplies to get through winter and then to build up numbers after low winter levels.

When choosing any plants on the lists below, be mindful of what natives are local to your area, will the native or exotic plant actually grow on your site, and will it suit the purpose of the planting (e.g. will it stand up in the wind).

Plants that flower over this period include the native species *Hoheria populnea* (lacebark), *Pseudopanax* species (five finger, lancewood), *Sophora* species (the Kowhais), *Cordyline* species (cabbage trees), *Myoporum laetum* (ngaio), *Carmichaelia* species (brooms), *Coprosma* species, *Kunzea ericoides* (kanuka), *Leptospermum scoparium* (manuka), *Discaria toumatou* (matagouri), *Aristotelia serrata* (wineberry), *Corynocarpus laevigatus* (karakā), *Fuchsia excorticata* (Kotukutuku), *Knightia excelsa* (rewarewa), *Pittosporum* species (kohuhu, lemonwood, karo), *Weinmannia racemosa* (kamahi) and *W. silvicola* (tawhero), *Hebe* species (e.g. koromiko), *Phormium* species (flaxes), and *Cyathodes fraseri* (patotaro, bronze heath).

These species can be incorporated into shelterbelts, or riparian, wetland, erosion control, screening and amenity plantings.

Exotic multiuse plants for the autumn to spring flowering window include *Banksia integrifolia* (shelter), *Malus* species (apples), *Pyrus communis* (pears), *Chamaecyparis palmensis* (tree lucerne, tagasaste), *Eucalyptus* species (camaldulensis, cordata, globoides, globulus, grandis, leucoxydon, maidenii, melliodora, pauciflora, rodwayi, sideroxydon, stellulata, viminalis), *Corymbia maculata* (spotted gum), *Salix matsudana* (matsudana willow), *S. babylonica* (weeping willow – only male clone in NZ), *S. 'Glenmark'* (male clone of pussy willow), *Rosmarinus officinalis* (rosemary), *Lavandula stoechas* (lavender), *Grevillea* species and cultivars (e.g. 'Victoria'), and *Robinia pseudoacacia* (black locust).

Practical uses are for timber, shelter, firewood, hedging, food, firewood, and erosion control.

Ornamental exotic trees to add to the list are bottle brush, chestnuts (horse and sweet), and the Acacia species *A. baileyana* and *A. pravissima*.

The summertime is when most hives accumulate their food reserves in the form of honey. There are many species they will go to for this purpose. Some have already been mentioned as they start flowering in spring. The principal summer flowering species are clover, manuka, rata, pohutukawa, southern beech honeydew, viper's bugloss, borage, escallonia, lime/linden, *Corymbia ficifolia* (red flowering gum), *Eucalyptus* species (various), and Tawari.

A number of noxious weeds, surveillance and unwelcome plants are excellent for bee fodder. Of course you wouldn't want to plant these but even bad guys have some good in them. They include gorse, sycamore, crack and grey willow, barberry, buddleia, hawthorn, thyme, flowering currant, blackberry, Spanish heath, lantana, Scottish heather and broom to name a few. Consult the

Ministry of Primary Industries (MPI), DOC, and National Plant Accord or your Regional Council if you are unsure.

Murray Mannall, Southern Woods Nursery

Information has been sources from many sources over the years, and from my own observations. The principal sources referred to are

Smart Farming for Healthy Bees. 2009 to found at www.fedfarm.org.nz/treesforbees or www.treesforbees.org.nz. There are specific plant lists for 10 areas of the country. Trees for Bees is a collaboration between Federated Farmers, Landcare Research, NZ Honey Industry Charitable Trust, Oceania Pollinator Initiative, NZ Plantfinder, and various nurseries spread throughout the country including Southern Woods Nursery.

Practical Beekeeping in New Zealand. Andrew Matheson. 1984