



Trees for Bees SFF Project: Introduction & Why it is so Important for Sustainable Beekeeping

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NBA Conference, Auckland

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**Started by John Hartnell
& FF Bees Canterbury**

**10 Regional Guides
Launched in Nov 2009**



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Bee Friendly Farming Group (BFFG)

**Chair of BFFG
Ross Little**

**On his farm at
Mount Vulcan,
Amberley**

The Importance Of Bees!



- **Pollination** (*“Of some 100 crop species which provide 90% of food worldwide, 71 of these are bee-pollinated”* UNEP report)
- **Pollination of pasture legumes = \$1.87 billion worth of nitrogen each year to NZ soils**
- **Indicator of the health of our environment**

Problems Facing Bees!



- Bees disappearing worldwide!
- New diseases & pests
- Agrichemicals in the environment
- Loss of pollen & nectar sources
- The Synergy is disastrous!

Bees need...



- **Good nutrition (pollen & nectar sources)**
- **Queen (Young, vigorous, right genetics)**
- **Strong force of workers (good balanced)**
- **No diseases or pests**
- **Shelter & sun (also protection from stock)**
- **Clean water**

How can Farmers help?



Plant multipurpose species that will also provide bees with:

- pollen (especially high value protein)
- nectar (sugars)
- shelter
- Be careful with chemical sprays
- Get to know your local beekeepers

The Importance of Pollen

- Source of protein to bees
(Also resistance to viruses, *N. ceranae*)
- Over 25% protein is best
- Fat is attractive to bees
- Knowing protein levels is important
- Don't know about NZ Native species!



Australian Government
Rural Industries Research and
Development Corporation

FAT BEES SKINNY BEES

A manual on honey bee nutrition
for beekeepers



A Report for the Rural Industries
Research and Development
Corporation

RIRDC Publication Number 05/054
RIRDC Project Number DAN-186A

by Doug Somerville

Examples:



Radiata pine
(Pinus radiata)

Versus

Sydney blue gum
(Eucalyptus saligna)

Protein 9% (v. poor)

Protein 28% (excellent)

Crack willow
(Salix fragilis)

Versus

Pussy willow
(Salix discolor)

Protein 15% (poor)

Protein 22%

Protein levels in common plants:



<i>Plant</i>	<i>Protein</i>	<i>Fat</i>
Canola	23%	7%
Viper's bugloss	35%	4%
<i>E. globulus</i>	28%	-
<i>E. delegatenis</i>	23%	2%
Almond	25%	2%
Pear	26%	2%
Walnut	25%	-

UNEP EMERGING ISSUES

“Farmers that grow pollinator-dependant crops without managed bees can expect declines in yield and/or quality if local wild and managed bee populations are insufficient.”

