Winter Preparation

How your bees enter winter
will dictate how they emerge in spring

Additional photos Gerry Collins, NDB

Summary

- Queens & brood
- Stores / Feeding
- Robbing / Pests
- Mice / Woodpeckers
- Wind
- Wax moth

Queens & Brood

- Queens producing brood – Winter bees
  - Laying rate decreases
  - Young healthy queens ideal
  - 6 frames bees

Varroa Treatment

- Common time to treat – but should be season-long monitoring
- Important need to reduce varroa load before winter

Treatment	Positive	Negative
Thymol e.g. Apiguard	No resistance Very effective knock down	Temperature sensitive Only affects phoretic mites Taints honey
Pyrethroid-based e.g. Baverol	Very effective knock down	Resistance Only affects phoretic mites
Oxalic acid	No resistance Can be used during winter brood break (Treatment of choice of many beeks) Very effective knock down	Only affects phoretic mites
MAQS (Formic acid)	Penetrates cappings	Queen problems? Expensive

Feeding

- Bees require 20+ kg stores to over winter
  - More if it's a mild winter or prolific strain of bee
  - 1 brood frame about 2.5kg
  - Super underneath brood chamber
  - Pollen as well

- What to feed? Strong strength syrup
  - 1kg sugar to 630ml water
  - Types of feeders
  - Don't feed honey from other bees

Pests

Wasps

- Reduce entrances
- Tunnels
- Traps
- Avoid spilling sugar syrup / honey
- Well fitting hive components

Protect against mice

- Mice can enter unprotected hives around October
- Build a nest, eat combs and bees, chew frames, leave faeces and make the contents of the hive smell

Wax Moth

- Two species – Greater & Lesser
- Attacks mainly brood frames

•Freeze frames
•Encourage spiders in your store!
•Acetic acid
•Certan – Bacillus thuringiensis

Protect against Green woodpecker

- Ground is frozen, peck holes though sides of hives, damage frames and eat the bees.

Protection against the weather

- Hive position must be sheltered so that it isn't exposed to full force of wind
- Apiary must not be in frost pocket
- Site must not be damp or liable to flooding.
- Ensure that the hives are on stands i.e. off the ground with air space under the floor board.
- Hives should not be directly under trees which are likely to drip or drop branches etc onto them.
- Hive must be sound and waterproof with good ventilation with something heavy to hold the roof down
- Strap hive together

Ventilation

- Ventilation during winter is important.
- More bees die from damp then from cold
- If water vapour doesn't leave the hive it condenses forming water on the inside of the hive walls.
  - – Top insulation causes this??
- Hive should slope slightly forwards so that any condensation/rain runs out of the hive.
  - Consider open mesh floors in winter