Treatment Against Wax Moth

and general sterilisation of honey comb

Total control of wax moth is unlikely to be achieved, as they can come in from outside. There are two kinds, the Greater Wax Moth *Galleria mellonella* that in my experience can be the most damaging, especially comb that has had brood in and the Lesser Wax Moth *Achroia grisella* that I find much less destructive. Both are said to only cause problems in comb that has had brood in, but I have seen Lesser Wax Moth damage virgin comb, although it has taken some time to destroy beyond use.

I have never treated for either greater or lesser wax moth, but been careful with my methods of storing combs and here are a few tips:-.

- Keep colonies strong at all times. Strong colonies will deal with wax moth and force them to the periphery where they can do less damage.
- Don't pack brood combs together in a brood box for storage. They will soon become one solid mass of cocoons.
- Keep unused combs as cold as you can to retard breeding of wax moth. They breed quicker in higher temperatures.
- Rotate supers, so the ones you don't use one year, make sure they are the first to be used the next year. This should avoid problems with Lesser Wax Moth in the supers.
- Render old combs and cappings as soon as you can.
- Don't store combs in plastic bags.

With care you should find no other treatment is required, but if you have problems the following can be used:-

- Older beekeeping books advise storing super combs "wet" without being cleaned up by the bees. This works against Lesser Wax Moth, but causes two other problems - fermentation of the honey over the winter and if the honey granulates it can "seed" the next honey to be stored, making it granulate in the comb. I have never stored supers wet, but have spoken to plenty who have!
- Acetic acid fumes will treat a wide range of pathogens and diseases. Acetic acid is very corrosive and will attack metal fittings and fasteners. This kills the egg stage as well as all others and is useful to sterilise against Nosema spores. Quite frankly there are enough health hazards with acetic acid; I can do without dealing with it.

- Sulphur dioxide SO_2 is sold by equipment suppliers as sulphur strips. Once again I can do without the health hazards.
- *Bacillus thuringiensis* (BT) There are two brands of this, B401(formerly called Certan®) and Mellonex® It is a bacterial spore preparation. Dave Cushman reckoned that it can be kept alive by culturing in milk after macerating affected larvae.
- Freezing can be used for comb honey or empty combs of any type. This will kill all stages, but is a bit inconvenient for large quantities.

What not to use.

- Under **no** circumstances should naphathlene (moth balls) be used as it is highly toxic to bees and accumulates in wax.
- Paradichlorobenzene (PDB) was advised in older books and literature, but is no longer acceptable as it's use is considered to be injurious to health. In the U.K. no trace of PDB is permitted in honey.

DIY Moth traps may be useful in some situations, but will not give total control.

We must remember that wax moth is very useful in wild nests. If a colony dies out, possibly from disease, the wax moth move in and destroy everything, leaving a clean cavity for another swarm to move into.