

Open mesh floors

The use of open mesh floors has been advocated by many beekeepers for years. Their use and practicalities are many but the most important purpose is to help control *Varroa* mite levels within a honey bee colony. Research states that about 20% of *Varroa* mites hatching from brood with their host bees will fall off within three days of emergence. Though many of these mites may be the least viable, indications are that it is a cross section of the mite population that fall. Older mites also have a tendency to fall off bees. With the use of open mesh floors most of these will fall out of the hive and be unable to return.



Why should I consider using them?

As part of an Integrated Pest Management (IPM) system to control *Varroa*, the use of open mesh floors may help to slow mite population growth. Current scientific

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opinion is that when using open mesh floors a lower proportion of a *Varroa* mite population enters the brood to reproduce.

Are there other benefits?

Open mesh floors can be adapted to accept floor inserts so that mite populations can be calculated by means of natural mite mortality. This enables the beekeeper to monitor at the times of year that he wishes and leave the floor 'open' at other times. This helps to prevent wax moth problems, which are often encountered when using conventional *Varroa* floors. Additionally, an open meshed floor aids in ventilating the hive and preventing damp or mould building up. Additional benefits also include not needing a travelling screen when moving a colony.

Can the efficacy of *Varroa* control be improved?

Together with the use of dusts such as icing sugar, talc etc., the drop of mites may be substantially increased. However further work needs to be done in this area to ascertain its effectiveness. Current interpretation of the Veterinary Medicine Regulations indicates that the use of dusts as a control for *Varroa* may make them a Veterinary Medicine and therefore subject to legal control. It may be prudent to examine the current interpretation before use.

Where can I obtain open mesh floors?

Some equipment manufacturers are offering these for sale. They can easily be made. The plan, overleaf, can be adapted to suit your needs. This drawing suits top bee space. If you use bottom bee space the lathe between the mesh and brood box can be reduced to 10-mm., which helps to prevent the build-up of brace comb between frames and the mesh panel.



Hive debris dropped into an open mesh floor tray. After a week of leaving it in, you can count the number of mites and then work out the population using our *Varroa* calculator. If the mite population exceeds 1000, the colony should be treated.

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