



National Bee Unit

Open mesh floors

February 2022

The use of open mesh floors (Often referred to by beekeepers as OMF's) 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, and the effective use of open mesh floors coupled with drone brood culling should result in an efficacy (mite population reduction rate) of 50%. Current scientific 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 appropriate times of year and leave the floor 'open' at other times. Additionally, an open mesh floor aids in ventilating the hive and preventing damp or mould building up.

Can the efficacy of Varroa control be improved?

Together with dusting with icing sugar, the drop of mites may be substantially increased when using an OMF. 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 icing sugar as a control for Varroa may make them a Veterinary Medicine and therefore subject to legal control.

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